

**STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**IN THE MATTER OF  
HURRICANE GUSTAV  
AND ITS AFTERMATH**

**AGENCY INTEREST NO. 160278**

**FIRST AMENDED DECLARATION OF EMERGENCY  
AND ADMINISTRATIVE ORDER**

Pursuant to the authority granted to me by Louisiana Revised Statutes 30:2001 *et seq.*, and particularly La. R.S. 30:2033 and 2011(D)(6), I hereby make the following findings, declaration and order, which supercede the Declaration of Emergency and Administrative Order issued by this agency on August 31, 2008, and amend the following provisions thereof: §1.g.i, §1.g.ii, §1.h, §1.i.ii, §2.e.iii, §4.a, §5.c, §5.d, §5.f, §5.f.v, §5.g, §5g.ii, §5.h, §5.h.ii, §9, and Appendix F.

**FINDINGS AND DECLARATION**

1. On the 1st day of September, 2008, Hurricane Gustav (hereinafter "the Hurricane") is expected to make landfall on the coast of Louisiana, causing widespread damage within the State of Louisiana.
2. By State of Louisiana Proclamation No. 51 BJ 2008, Louisiana Governor Bobby Jindal declared on August 27, 2008, that a state of emergency exists in the state of Louisiana, as the Hurricane is expected to impact the coastal parishes of Louisiana with hurricane strength winds, wave surges, high tides, torrential rain and tornado activity, threatening the lives and property of the citizens of the State of Louisiana.
3. The parishes in which local government and/or the Governor has declared or declares an emergency shall constitute the specific areas covered by this Declaration of Emergency and Administrative Order (hereinafter "Order"). These areas shall herein be referred to as the "Emergency Areas."

September 6, 2008

4. I find that the Hurricane has created or will create conditions that require immediate action to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

WHEREFORE, I hereby declare that an emergency exists, and that the following measures are necessary to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

### ORDER

Within the Emergency Areas:

#### **§ 1. Wastewater Treatment Systems**

##### **a. Upset Provisions**

Permittees with Louisiana Pollutant Discharge Elimination System (LPDES) permits should consider activating the upset provisions in their permits. LAC 33:IX.2701.N.1 defines upset as the following:

*An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.*

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of LAC 33:IX.2701.N.3 are met. This Order extends upset provisions to include water quality based effluent limitations. For upsets caused by this hurricane, the 24-hour oral notification is waived unless the non-compliance may endanger human health.

September 6, 2008

b. Authorization is hereby granted to discharge water placed in storage tanks or other containers or vessels for the purpose of stabilization, provided that the tanks, containers or vessels had been emptied of their previous contents prior to filling with the water. To the extent practicable, discharges should not contain free oil, hydrocarbons or other pollutants in other than trace amounts. No free oil shall mean that the discharge shall not create a visible sheen. Water that accumulates in storage tanks, containers or vessels as a result of rainfall, flooding or tidal surge may be discharged under the same conditions.

c. Appendix A sets forth guidance to operators of sanitary wastewater treatment systems to aid in the return to compliant operations to prevent further damage to the environment and serious threats to life or safety throughout the Emergency Areas.

d. Discharges from Potable Water Treatment Systems

The discharge of pollutants from all potable water treatment systems is subject to the Louisiana Pollutant Discharge Elimination System (LPDES) General Permit for potable water treatment plants. Under ordinary circumstances, LDEQ requires the submission of a complete Notice of Intent to Discharge, and evaluation and response from LDEQ prior to commencement of discharge.

However, to alleviate shortages of potable water in the Emergency Areas, authorization is hereby granted for new discharges of wastewaters associated with potable water treatment systems in the Emergency Areas, and the requirement for submission of a Notice of Intent to Discharge, evaluation and response from LDEQ is hereby waived. Any such discharges must comply with LPDES Permit LAG380000, Potable Water Treatment Plant General Permit. The General Permit effluent limitations and requirements can be viewed at <http://www.deq.louisiana.gov/portal/portals/0/permits/lpdes/LAG380000.pdf>. A copy of the General Permit can be obtained by calling the Office of Environmental Services at (225) 219-3181.

Deadlines for monitoring and reporting requirements are addressed in Section 14 of this Order.

September 6, 2008

Authorization to discharge pursuant to this Order shall terminate upon the expiration of this Order. Any facility owner or operator requiring continued coverage under the General LPDES Permit subsequent to the expiration of this Order shall submit a Notice of Intent to Discharge from a Potable Water Treatment Plant to the Department by the expiration date of this Order. The application form, H2O-G, can be found at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=1837>, or by calling the Office of Environmental Services at (225) 219-3181.

Any owner or operator who commences discharge of pollutants from a portable potable water treatment unit pursuant to this Order shall submit written notification to the Office of Environmental Services at P.O. Box 4313, Baton Rouge, LA 70821-4313, within five (5) days of the commencement of the discharge.

e. Discharges from Temporary Housing Locations

Guidelines pertaining to sanitary discharges related to temporary housing sites are provided in Appendix B of this Declaration.

f. Gray Water Discharges

The Department hereby authorizes discharges of gray water within the Emergency Areas that comply with the requirements set forth in Appendix C.

g. Storm Water Discharges

i. U.S. Army Corps of Engineers

The Department hereby authorizes the U.S. Army Corps of Engineers to discharge storm water runoff from construction activities related to hurricane response activities in the Emergency Areas. Best Management Practices to avoid erosion and offsite transport of sediments are to be implemented to the greatest extent practicable. The Storm Water General Permit For Construction Activities Five (5) Acres Or More (LAR100000) can be accessed at <http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/LAR100000.pdf>, and contains applicable Best Management Practices for erosion and sediment controls in Part IV. Storm Water Pollution Prevention Plans.

ii. Electrical and Communications Utility Companies

September 6, 2008

The Department hereby authorizes public utility companies providing electricity or communications services to discharge storm water runoff from construction activities related to hurricane response activities in the Emergency Areas, including restoration of electrical and communication services. Best Management Practices to avoid erosion and offsite transport of sediments are to be implemented to the greatest extent practicable. The Storm Water General Permit For Construction Activities Five (5) Acres Or More (LAR100000) can be accessed at <http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/LAR100000.pdf>, and contains applicable Best Management Practices for erosion and sediment controls in Part IV. Storm Water Pollution Prevention Plans.

h. Biosolids Land Application Projects/Sites Management:

i. If flooding should occur as a result of a hurricane, land application of Class B Biosolids should not take place at permitted land application sites.

ii. Land application of a Class B Biosolids at permitted sites should not resume until flooding has subsided and the water table is below 2 feet.

iii. Facilities which prepare Exceptional Quality (EQ) Biosolids should re-prepare/retreat EQ Biosolids or dispose of the EQ Biosolids if stored “on-site” and subjected to hurricane flooding.

iv. Facilities utilized to prepare sewage sludge to EQ Biosolids should halt operation during a hurricane and should not resume operation until the flooding has subsided and the facility has been properly cleaned.

For additional information, contact Kilren Vidrine, LDEQ, Office of Environmental Services, Water Permits Division, 225-219-3012.

i. Acceptance of sewage sludge:

i. Operators of wastewater treatment facilities who are not already authorized by permit to do so are hereby authorized to accept hauled sewage sludge (as defined at LAC 33:IX.7301.B), provided that the following criteria exist:

a. Acceptance of the sewage sludge is necessary to facilitate hurricane recovery (e.g., by preventing septage from backing up in homes or by

September 6, 2008

preventing lift stations from overflowing or otherwise malfunctioning). This authorization does not apply to the routine pumping of septic tanks, portable toilets, marine sanitation devices, or holding tanks not related to the hurricane recovery;

b. The wastewater treatment facility can handle the hauled sewage sludge without contributing to adverse effects on human health or the environment or impeding recovery of the treatment facility itself; and

c. The operator immediately notifies the LDEQ Water Permits Division of the acceptance of the sewage sludge, by telephoning Melvin Mitchell or Kilren Vidrine, at (225) 219-3013, and provides written notification within 30 days to the Office of Environmental Services, Water Permits Division, P.O. Box 4313, Baton Rouge, Louisiana 70821-4313, or by e-mail to [mitch.mitchell@la.gov](mailto:mitch.mitchell@la.gov) or [kilren.vidrine@la.gov](mailto:kilren.vidrine@la.gov).

j. For all discharges authorized under this Order, the following conditions apply:

i. The owner/operator shall notify the Office of Environmental Services, Water Permits Division by no later than September 8, 2008, that a discharge has occurred or is anticipated.

ii. For each discharge, the owner/operator shall record the location of the discharge, the date and time the discharge commenced and ceased, the approximate volume of the discharge, any known or suspected pollutants present in the discharge and the receiving water body. The specific type of discharge and a reference to the specific section(s) of this Order authorizing the discharge shall be included. These records shall be kept on-site and available for inspection by the Office of Environmental Compliance, Surveillance Division and reported to the Office of Environmental Services, Water Permits Division by no later than thirty days after the expiration of this order .

iii. The owner/operator shall take all practicable measures to minimize the volume and duration of the discharge.

September 6, 2008

iv. The owner/operator shall take all practicable measures to prevent or minimize erosion due to the discharge and any other potential impacts on the receiving water body.

v. All discharges authorized under this Order are solely for the purpose of protecting human health and property and to facilitate rescue and recovery efforts.

**§ 2. Solid Waste Management**

a. Owners and operators of solid waste management facilities and local governments should consult and adhere to the State of Louisiana "Comprehensive Plan for Disaster Clean-up and Debris Management," revised August 2006 edition (Debris Management Plan), which appears as Appendix D, except where the Debris Management Plan may be in conflict with the provisions of this Order. In the event of conflict, the provisions of this Order shall prevail.<sup>1</sup> Provisions of the Debris Management Plan not specifically allowed under this Emergency Order include the expanded definition of Construction and Demolition Debris, references to enhanced Construction and Demolition Debris Landfills, and burning of C&D debris.

i. Ash residue from the combustion of yard trash or clean wood waste shall be disposed of in accordance with the Debris Management Plan.

ii. Vegetative debris shall be managed in accordance with the Debris Management Plan. The Department may authorize disposal of vegetative debris containing incidental, *de minimus*, or trace amounts of contamination in a Type II or III landfill on a case-by-case basis.

iii. Putrescible waste (e.g., rotting food that has been removed from unsalvageable refrigerators and freezers) shall be disposed of in a permitted Type II landfill in accordance with the Debris Management Plan.

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<sup>1</sup> For example, the definition of "construction and demolition debris" in the Debris Management Plan includes "furniture, carpet, painted or stained lumber contained in the demolished buildings." These are not, pursuant to the terms of this Order, permissible for disposal in a Type III (C&D) landfill.

September 6, 2008

iv. The disposal of excessive accumulations of small animal carcasses shall be in accordance with the Louisiana Department of Health and Hospitals sanitary code and the Debris Management Plan. The disposal of large animal carcasses (e.g. horses, cows) shall be in accordance with the instructions from the Louisiana Department of Agriculture and the Debris Management Plan.

b. Owners and operators of solid waste management facilities permitted by the Department before the Hurricane are authorized to make all necessary repairs to restore essential services and the functionality of stormwater management and leachate collection systems damaged by the Hurricane, without prior notice to the Department. Within thirty (30) days of commencing the work of such repair or replacement, however, the permittee shall notify the Department in writing, describing the nature of the work, giving its location, and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work.

c. Uncontaminated construction and demolition debris may be disposed of in a permitted Type III landfill. On a case-by-case basis, the Department may authorize disposal of construction and demolition debris containing incidental, *de minimus*, or trace amounts of contamination in a Type III landfill. Uncontaminated construction and demolition debris may be managed at a temporary staging area authorized by the Department. Uncontaminated construction and demolition debris that is mixed with other uncontaminated hurricane-generated debris, such as white goods or household hazardous waste, should be segregated from other solid waste prior to disposal in a permitted landfill or authorized disposal site, except in cases where segregation is not practicable.

d. White goods (i.e., unsalvageable air conditioners, stoves and range tops, as well as refrigerators and freezers from which food has been removed) shall be stored in an area separate from other solid wastes and shall be stored in a manner that prevents vector and odor problems. No white goods may be stored at a site without a permit or other written authorization from the Department specifically allowing storage in that area. All white goods shall be removed from the storage facility or staging area and

September 6, 2008

sent offsite for recycling, or recycled onsite, within ninety (90) days of initial receipt at the site.

e. Permitted landfills or transfer stations within or outside of the Emergency Area, which accept hurricane-generated debris in accordance with the terms of this Order, may accept hurricane-generated debris for disposal or storage without the need to first modify existing permits, as follows:

i. Prior notification is submitted to the Department describing any proposed deviations from permit conditions;

ii. any proposed deviations from permit limits must be within the bounds of engineering assumptions used in the design of the facility, and conducted in accordance with the Debris Management Plan (Appendix D); and

iii. Written approval by the administrative authority (including electronic mail ) of the proposed deviations is received from the Department.

Operators of landfills or transfer stations approved for permit deviations under this Order may be required to submit application for modifications of their existing permits to address any long-term impacts of accepting hurricane-generated debris on operations and closure that are not addressed in existing permits if it is determined long term impacts will result from these activities. Long-term impacts are those that will extend past the expiration date of this Order. The requests for modification shall be submitted no later than thirty (30) days after expiration of this Order. No permit fee will be required for any modifications necessitated solely by the hurricane clean-up activities. The Department may, for good cause shown, issue a temporary authorization pursuant to LAC 33:VII.511.B.1.a for activities that are addressed in a permit modification request as provided for in this subsection, to authorize operations after expiration of this Order, pending a decision on the modification request.

f. Site Authorizations will be considered in accordance with procedures contained in the Debris Management Plan. Authorizations may be requested by providing a notice to the Department on approved forms (Debris Management Site Form: <http://www.deq.louisiana.gov/portal/Portals/0/HurricaneGustav/Emergency%20Debris%20>

September 6, 2008

[Management%20Site%20Request%20Form.pdf](http://www.deq.louisiana.gov/portal/Portals/0/HurricaneGustav/Procedures%20To%20Approve%20Emergency%20Debris%20Management%20Sites.pdf); Procedures to Approve Emergency Debris Management Sites: <http://www.deq.louisiana.gov/portal/Portals/0/HurricaneGustav/Procedures%20To%20Approve%20Emergency%20Debris%20Management%20Sites.pdf>).

g. Construction and demolition debris generated from residential structures of four units or less that are subject to a government-ordered demolition shall be disposed of in accordance with the Debris Management Plan (Appendix D), except Regulated Asbestos Containing Material (RACM) shall be disposed of in a Type I/II landfill. A request by a landfill owner or operator for authorization to accept such ACWM must include a certification that the owner or operator will manage the ACWM in accordance with the landfill's QA/QC plan and LDEQ requirements. See Section 6.a, *Asbestos Clean-up*, of this Order, for additional information on receiving ACWM in Type I and II landfills. The Department will provide a written response to the request for authorization to accept solid waste and asbestos containing waste material in a Type I or II landfill.

h. Waste Tires

The Secretary of the Louisiana Department of Environmental Quality finds that the conditions resulting from the Hurricane may cause or contribute to an extraordinary drain on State of Louisiana resources and in particular on the Waste Tire Management Fund (WTMF) provided for in La. R.S. 30:2418. Those conditions include the damaging and/or abandonment of automobiles in the affected areas. It is anticipated that most of these vehicles will be salvaged or scrapped, with the four to five tires on each vehicle being sent for either disposal, resale, and or recycling. This sudden influx of waste tires and used tires into the system may result in an inordinate immediate drain on the WTMF and an inability to properly account for the diversion of tires to recycling projects and for resale. As a result, the Secretary does hereby order the following:

i) All tires removed from vehicles within the affected areas that are salvaged and/or scrapped because of damage resulting from the Hurricane shall be tracked and are ineligible for payment from the WTMF.

September 6, 2008

ii) All tires that are collected in the affected areas through hurricane debris collection activities and deposited at parish collection centers, if established, will be ineligible for payment of the WTMF subsidy, but are to be treated as debris under existing debris removal programs. Tires must be classified for either recycling under existing approved beneficial uses, or for resale. Any person who claims for resale any tires from salvaged or scrapped vehicles in the affected area shall report to the Department the number of such tires classified for resale, and their destination, within fifteen (15) days.

iii) All tires that are removed from automobiles in the affected area that are destined for salvage because of damage resulting from the Hurricane must be collected, transported, and either recycled or disposed of with an accompanying manifest that lists the tires as being ineligible for the WTMF. If the tires are deemed “used tires” for resale, such a declaration must be reported to the Department by the person responsible for removal of the tires from the vehicle being scrapped and or salvaged. The report must contain the VIN number of the vehicle being scrapped and or salvaged, the number of tires being removed, the number being classified for resale, and the number classified for recycling and/or disposal.

iv) Eligibility of tires for the WTMF subsidy shall be governed by the most current version of this document.

### **§ 3. Hazardous Waste**

a. In accordance with the Debris Management Plan, hazardous waste generated as a result of the hurricane event must be separated from other hurricane-generated waste and disposed of at a permitted hazardous waste disposal facility. Household wastes collected during this event, which are exempt from the regulatory requirements applicable to hazardous wastes, must be managed not only in an environmentally sound manner but also in accordance with the appropriate LDEQ rules and regulations governing the storage and processing of this type of waste.

September 6, 2008

b. A blanket approval of time extensions under Louisiana Administrative Code 33:V.1109.E.2 is necessary within the Emergency Areas for hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, pending the cleanup of the hurricane damage and restoration of essential services. The rules authorize a thirty (30) day extension because of unforeseen and uncontrollable circumstances. The specific effects of the Hurricane were unforeseen and uncontrollable. Therefore, to avoid having to issue a potentially large number of individual approvals on a case-by-case basis and waste limited agency resources during the time of emergency, the Department authorizes a general extension of time of thirty (30) days from the expiration of this Order for all such hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, in the parishes within the Emergency Areas, and where their ninety (90) day accumulation period expires within the term of this Order.

**§ 4. Open Burning**

a. The Department authorizes local governments or their agents to conduct the open burning of hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris within or outside of the Emergency Area, provided that the provisions of LAC 33:III.1109.D.6. are met, and it is consistent with the Debris Management Plan (Appendix D). This Order does not authorize any other outdoor burning of non-listed debris streams. Within seven (7) days of commencing any such burning, the local government or its agent shall notify the Department in writing, describing the general nature of the materials burned, stating the location and method of burning, and providing the name, address, and telephone number of the representative of the local government to contact concerning the work and the anticipated duration of the burning event. This Order does not relieve the local government or the agent from any requirement to obtain an open burning authorization from any other governmental entity empowered to grant such authorizations. Notwithstanding the provisions of this paragraph, the burning of asbestos-containing materials, construction and demolition debris, solid waste (other than vegetative debris) or hazardous waste is prohibited.

b. The Department will consider, on an individual basis, requests for approval for open burning, by persons other than local governments or their agents, of hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris. Any such burning approved by the Department must be conducted in compliance with the requirements of LAC 33:III.1109.D.6.

**§ 5. Air Pollution Sources Other than Open Burning**

a. The Department authorizes the minor repair of any previously permitted stationary source of air pollution that was damaged by the Hurricane to restore it to its previously permitted condition without prior notice to the Department. Within thirty (30) days of commencing such repairs, however, the permittee shall notify the Department in writing, stating the location and nature of the work and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work. Minor repairs are repairs that would not constitute reconstruction under any definition of 40 CFR Part 60 or 63 and that could not affect potential to emit any pollutant, and that would not constitute a violation of any other provision of the NSPS, MACT, or NESHAP standards. Repairs that would constitute reconstruction under any definition of 40 CFR Part 60 or 63, or repairs that could affect potential to emit any pollutant are not authorized by this Order.

b. The Department will consider, on an individual basis, requests for approval for, but not limited to, the following sources of air pollution:

i) temporary air pollution control devices, such as portable flares, used for vessel and pipeline segment purging and the limited operation of facilities with damaged vapor control equipment;

ii) portable storage tanks, used for interim storage while damaged equipment is being repaired; and

iii) repairs, other than the minor repairs addressed in Section 5.a above, of permitted stationary sources that have been damaged by the Hurricane, provided that

September 6, 2008

the sources are restored or replaced with equipment that is identical or the functional equivalent, to meet permit conditions.

Requests should be directed to the Office of Environmental Services, Air Permits Division.

c. The Department authorizes temporary gasoline and diesel fueling stations at regulated industrial facilities for the express purpose of refueling onsite vehicles essential for plant operations, vehicles of employees, and local emergency authorities and responders.

d. The throughput of any temporary gasoline storage vessels used exclusively for providing gasoline to employees of the tank operator and local emergency authorities and responders will not be counted toward the annual or thirty (30) day average throughput for purposes of determining the applicability of control requirements under LAC 33:III.2131. This subparagraph applies only to gasoline provided to employees at or below the operator's cost. This subparagraph does not exempt the operator from any other applicable regulatory requirements, specifically including, but not limited to, the spill prevention and control requirements of the Louisiana Water Quality Regulations (LAC 33: Part IX).

e. LAC 33:III.507.J.2 provides that an upset condition constitutes an affirmative defense to an action brought for noncompliance with technology-based emissions limitations. LAC 33:III.507.J.2.d requires the permittee to notify the Department no later than two (2) working days after the time emissions limitations were exceeded due to the upset. Because of the circumstances caused by the Hurricane and the need to apply facility resources to quickly repair and correct conditions caused by the upset, the Department extends the notification requirement referenced above to seven (7) days.

f. The Department authorizes the use of temporary portable emergency internal combustion engines, including, but not limited to, electrical power generators, firewater pumps, and air compressors, and the associated fuel storage tank, until such time as normal operations are restored or until the expiration of this Order, whichever is earlier.

September 6, 2008

i) The owner/operator shall notify the Office of Environmental Services, Air Permits Division by no later than September 8, 2008, that operation of temporary portable combustion engines has occurred or is anticipated.

ii) Emergency engines shall be fueled by natural gas, gasoline, diesel, or fuel oil that contains less than 0.5 weight percent sulfur.

iii) Emergency engines shall comply with all *applicable* requirements of 40 CFR 60, Subpart IIII–Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines; 40 CFR 60, Subpart JJJJ–Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines; and 40 CFR 63, Subpart ZZZZ–National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

iv) Each facility subject to LAC 33:III.919 shall include emissions from all such emergency engines in its annual emissions statement.

v) For each temporary emergency engine, the owner/operator shall record the date the unit is delivered; its make, model, and manufacturer's rated horsepower; the fuel type; total operating time; and the date the unit was removed from the site. These records shall be kept on-site and available for inspection by the Office of Environmental Compliance, Surveillance Division and reported to the Office of Environmental Services, Air Permits Division by no later than thirty days after the expiration of this Order.

g. For permitted internal combustion engines operated in direct response to the Hurricane, including, but not limited to, electrical power generators, firewater pumps, and air compressors, the Department suspends any limitations on operating time imposed by the applicable permit until such time as normal operations are restored or until the expiration of this Order, whichever is earlier. Emissions from the operation of such engines operated pursuant to this Order shall not count toward applicable ton per year limitations. All other provisions applicable to the engines shall continue to apply.

i) The owner/operator shall notify the Office of Environmental Services, Air Permits Division by no later than September 8, 2008, that operation of

September 6, 2008

permitted internal combustion engines in excess of permitted limits has occurred or is anticipated. Relevant emission point and permit numbers should be included in this correspondence.

ii) A report summarizing the operating time of permitted internal combustion engines in direct response to the Hurricane and the resultant criteria and toxic air pollutant emissions shall be submitted to the Office of Environmental Services, Air Permits Division by no later than thirty days after the expiration of this Order.

h. The Department suspends applicable limitations on throughput and emissions imposed on fuel loading racks by air quality permits through the expiration of this Order in order to maximize fuel availability in response to the Hurricane. Emissions from loading operations during this period shall not count toward applicable ton per year limitations.

i) The owner/operator shall notify the Office of Environmental Services, Air Permits Division by no later than September 8, 2008, that throughput in excess of permitted limits has occurred or is anticipated. Relevant emission point and permit numbers should be included in this correspondence.

ii) A report summarizing the throughput in excess of permitted limits and the resultant criteria and toxic air pollutant emissions shall be submitted to the Office of Environmental Services, Air Permits Division by no later thirty days after the expiration of this Order.

**§ 6. Asbestos Clean-up**

a. Asbestos clean-up shall be conducted in accordance with the Debris Management Plan. The Department waives the requirement for prior notification for emergency demolition or emergency cleanup of asbestos-containing material that is structurally unsound and in danger of imminent collapse resulting from the Hurricane. Within one (1) business day of commencing such demolition or cleanup, however, the person responsible for such work being undertaken by order of state or local government shall notify the Department in writing. The notification shall be submitted on the Asbestos

September 6, 2008

Notification of Demolition or Renovation Form AAC-2, which may be found at <http://www.deq.louisiana.gov/portal/tabid/2883/Default.aspx>. The procedures in LAC 33:III.5151 (demolition/renovation) and LAC 33:III.Chapter 27 (accreditation and training requirements) for handling asbestos-containing material shall be complied with during demolition, cleanup, transportation, and disposal, except as otherwise provided herein. Construction and demolition debris generated from residential structures of four units or less that are subject to a government ordered demolition (if ordered) and that are assumed to contain potential asbestos-containing waste material shall be disposed of in a permitted Type I or II landfill. The Department will provide a written response to any request for authorization for a Type I or II landfill to dispose of asbestos containing waste material. Burning and grinding of asbestos-containing material is prohibited.

b. The Department waives the requirement pursuant to LAC 33:III.2799.E.2.b.ii, that applicants receiving training from providers not recognized by the State of Louisiana also submit proof of training in current Louisiana asbestos regulations (see LAC 33:III.2799.F.5.g).

c. The Department waives the requirement pursuant to LAC 33:III.2799.F.5.c.i that recognized asbestos Training Providers give the Department notice at least five (5) days prior to class commencement. (Notification must be made at least three (3) days prior to a course when only the state regulations are to be taught.) Notice shall be provided to the Department within twenty-four (24) hours of class commencement.

d. Local education agencies and state government may make emergency use of a building as a school or state building. The agency making use of the building may request an extension of the deadline to inspect the building within four (4) months of the decision to use the building pursuant to LAC 33:III.2707.A.2.

e. The Department waives the requirement pursuant to LAC 33:III.2723.A.2 that the local education agency or state government must submit a management plan prior to any building's use as a school or state building. A management plan shall be submitted within six (6) months of the initial use of the building.

September 6, 2008

f. In addition to the qualifications established by LAC 33:III.2799.D.3, the Department may accredit as an “abatement project designer” any individual who:

i) has a Bachelor of Science in a related scientific field with five (5) years experience as a Contractor/Supervisor working under the direction of a Louisiana Accredited Project Designer, planning and implementing asbestos abatement projects;

ii) has at least ten (10) years experience as a Contractor/Supervisor working under the direction of a Louisiana Accredited project Designer, planning and implementing asbestos abatement projects; and

iii) has completed an application developed by the Department, and received signatures from two (2) Louisiana accredited Project Designers indicating that the applicant has the knowledge and skills to perform this type of work.

g. The fee charged for the Emergency Processing of Worker Accreditation for Asbestos (i.e., LAC 33:III.223, Fee #2070) shall be reduced to \$66.00 (i.e., the same fee as for normal processing, Fee #2060).

h. The duration of worker, contractor/supervisor, and inspector initial and refresher training courses is specified in numbers of days. A day of training may equal nine or ten consecutive hours, including breaks and lunch. For example, a 32-hour worker class may be taught in 9-hour days, reducing the class time on the fourth day by six (6) hours, a 40-hour contractor/supervisor class may be taught in 10-hour days, reducing the class time to four (4) days, and a 24-hour inspector class may be taught in 10-hour days, reducing the class time to 2.5 days.

i. The fee charged for the Emergency processing of Asbestos Notification of Demolition and Renovation Form AAC-2 (i.e. LAC 33:III.223, Fee code # 2030) shall be reduced to \$66 (sixty-six dollars) for hurricane related demolition of residential structures of four (4) units or less, subject to a government ordered demolition.

The Department shall generate a single Asbestos Disposal Verification Form (“ADVF”) per day, per landfill, per contractor for use with multiple loads of C&D debris that contains asbestos containing waste material, notwithstanding any provision to the

September 6, 2008

contrary in LAC 33:III.5151.F.2.g. The Department will also generate a blank “Addendum to ADVF for Transportation and Disposal of AWCM,” which will accompany the ADVF and which is to be completed and signed by the contractor and landfill operator. Detailed instructions and a sample Addendum are available on the Department’s Website at <http://www.deq.louisiana.gov/portal/tabid/2885/Default.aspx> under **\*\*Special Interest - Hurricane Related: Please Take Note\*\*** or by contacting the Permit Support Services Division, Notifications and Accreditations Section, at 225-219-0789.

**§ 7. Underground Storage Tanks**

Before placing any hurricane impacted Underground Storage Tank (UST) system back in operation, and no later than ninety (90) days after hurricane related conditions permit, the owner and/or operator shall perform an emergency evaluation of the UST system. The evaluation shall consist of, at a minimum, a general inspection of the UST system, followed by performing the start up protocol contained in Appendix F, “Plan For Evaluating Underground Storage Tank Sites Impacted by Hurricane Gustav.” Before placing fuel into any UST system that has been damaged or has sustained a release, the owner/operator must repair or replace the UST system, perform precision tank and line tightness tests and leak detection system tests, and provide a fully functional corrosion control system.

During the time that the UST system is not accessible due to conditions resulting from the Hurricane, the owner/operator of the UST system is relieved of the requirements for release detection, corrosion protection, and inventory control. Each owner/operator shall report any suspected UST releases to the Department within seven (7) days of gaining knowledge of the suspected release, unless an emergency condition makes it impossible for the owner/operator to do so, in which case the owner/operator shall report the suspected release to the Department as soon as he/she is able. All recordkeeping requirements for inoperable systems are suspended during the time of this Order. During the time of this Order, in the areas affected by the Hurricane, non-compliance with release detection, corrosion protection, and inventory

September 6, 2008

control for UST owners and operators will not constitute non-compliance for purposes of the deductibles enumerated in La. R.S. 30:2195.10.

**§ 8. Special Waste (Reuse and Recycle)**

Every effort should be made to minimize the disposal of reusable and recyclable material in landfills as noted in the Debris Management Plan (Appendix D). Appendix G lists special waste from specific sources (households, businesses, schools, public buildings, automobiles and boats) and references the FEMA Debris Plan, which provides information intended to assist operators of solid waste facilities, recycling centers, scrap metal dealer, local governments, and contractors in handling of certain debris from the Emergency Areas.

**§9. Public Notice and Public Participation Procedures Regarding Proposed Permit Actions**

Any public comment period ending between August 29, 2008 and September 15, 2008 for facilities located in the parishes of the emergency declaration are hereby extended through September 26, 2008.

Public Hearings scheduled in the Emergency Areas will be evaluated on a case by case basis depending on local conditions.

Updates will be provided on the Department's website and press releases will be prepared if a public hearing is postponed.

Appendix H provides special procedures for public notice and public participation regarding proposed permit actions in the Emergency Areas that may be activated in the event of prolonged or extensive interruption of newspaper services in the impacted areas. These procedures for comment period extension and revised public notice requirements may be revised after a full impact assessment is completed.

September 6, 2008

**§ 10. Records Management**

Hard copy or electronic copies of files associated with environmental issues for your facility may be available at the Department. Files destroyed by the Hurricane can be obtained by the Responsible Persons for your system from the Department free of charge. Please contact Records Management at (225) 219-3172 or online at <http://www.deq.louisiana.gov/pubRecords/>.

**§ 11. General Conditions**

a. This Order does not convey any property rights or any rights or privileges other than those specified in this Order.

b. This Order only serves as relief for the duration of this Order from the regulatory and proprietary requirements of the Department, and does not provide relief from the requirements of other federal, state, and local agencies. This Order therefore does not negate the need for the property owner or facility operator to obtain any other required permits or authorizations, nor from the need to comply with all the requirements of those agencies.

**§ 12. General Limitations**

The Department issues this Order solely to address the emergency created by the Hurricane. This Order shall not be construed to authorize any activity within the jurisdiction of the Department except in accordance with the express terms of this Order. Under no circumstances shall anything contained in this Order be construed to authorize the repair, replacement, or reconstruction of any type of unauthorized or illegal structure, habitable or otherwise.

**§ 13. Other Authorizations Required**

Nothing in this Order shall eliminate the necessity for obtaining any other federal, state, or local permits or other authorizations that may be required.

September 6, 2008

**§ 14. Extension of Time to Comply with Specified Deadlines**

For facilities regulated by the Department in the Emergency Area, this Order extends the time for a period of thirty (30) days to comply with the following specified deadlines that occur between August 31, 2008, and the expiration of this Order:

- a. The time deadlines to conduct or report periodic monitoring required by permits, other authorizations, enforcement actions, or settlement agreements, except for monitoring required by air permits issued under Title IV or V of the Clean Air Act or under the PSD program;
- b. The time deadlines to file an application for renewal of an existing permit, except for air permits issued under Title V of the Clean Air Act.

**§ 15. Completion of Authorized Activities**

All activities authorized under this Order must be commenced before the expiration of this Order unless otherwise provided in an authorization or permit. The deadline for commencement under any authorization or permit issued under this Order may be extended on a showing that contractors or supplies are not available to commence the work, or if additional time is needed to obtain any required authorization from the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, or other local, state, or federal agencies.

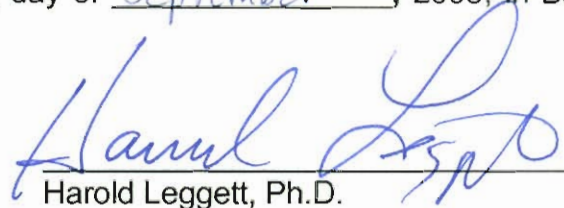
**§ 16. Amendments**

This Order may be amended as required to abate the emergency.

**§ 17. Expiration Date**

This Declaration of Emergency and Administrative Order shall take effect immediately upon execution by the Secretary of the Department, and shall expire sixty (60) days from the date of execution set forth below, unless modified or extended by further order.

**DONE AND ORDERED** on this 6th day of September, 2008, in Baton Rouge, Louisiana.

  
\_\_\_\_\_  
Harold Leggett, Ph.D.  
Secretary

September 6, 2008

## **APPENDIX A**

### **GUIDANCE PROTOCOL FOR SANITARY WASTEWATER TREATMENT SYSTEMS**

The following protocol is intended to assist operators of sanitary wastewater treatment systems in the Emergency Area in start up and operation.

#### **1. Access**

Entrance to the treatment plant should be considered only after flood waters have receded enough to allow safe operation of the treatment plant including the safe conditions for staff. Accessibility to treatment plants in restricted areas may need to be cleared with the Office of Emergency Preparedness. Contact the local sheriff if assistance in gaining access to the treatment plant is required. The use of sound personal protective equipment for safety in unsanitary or unsafe conditions is required. Early return to compliant operation minimizes long-term problems within the entire wastewater system.

#### **2. Power Supply**

For use of generator power, arrange for a reliable and continual fuel source. Contact the Department of Agriculture if assistance in obtaining fuel for power generation at your treatment plant is needed. If no generation is available and you must wait for electrical providers; consider notification to residents of the effect on collection lines. If removal of clean out plugs is needed to prevent back up into homes, notify affected customers warning them to remain clear of these areas. If pump trucks are used, LDEQ can advise of locations to dispose of the pumped sewage.

#### **3. Start Up**

Once it is safe, re-power the treatment system, aerators and pumps. The primary goal is to remove sanitary wastewater from contact with humans, while making every effort to do so in a manner that is practical and least impacting on the environment. Activate disinfection units and maintain them. Initial effluent will likely be poorly treated and of a very poor quality. Adequate disinfection will be important to protect human health downstream of the discharge. If the system has been down and/or without power for an extended period of time, resident bacteria used in the treatment process may need to be re-established. Consider reseedling the system with activated sludge from operating aerated treatment plants. Several treatment plants are available for use in reseedling. Contact the Department's Water Permits Division, Melvin "Mitch" Mitchell, 225-219-3013 (email) [mitch.mitchell@la.gov](mailto:mitch.mitchell@la.gov) for information regarding system seed sources.

September 6, 2008

#### **4. Monitoring**

Watch plant operations carefully to confirm it is functioning properly. Ensure that lift stations within the collection system are functional. Without functioning lift stations, sewage is not being removed from residences and sent for treatment. Visually observe effluent to maximize treatment effectiveness in the short term. If simple tools and/or tests are available to diagnose the plant's operational status ("sludge judge," settle-o-meter, dissolved oxygen meters, BOD analyses) use them frequently. If your plant is discharging poorly treated sewage, consider the impacts to persons, fish and wildlife downstream, including the possibility that drinking water intakes may be located downstream of your effluent. Notification to downstream users may be necessary to protect human health. Sample and analyze your effluent per LPDES requirements as soon as you are able.

#### **5. Notifications and Documentation**

Discharges that result in emergency conditions (threat to human health and the environment) must be reported immediately (1-877-925-6595). Discharges that result in emergency conditions (threat to human health and the environment) may require notification to affected persons. Report to the Department any discharges that interfere with downstream uses, such as swimming or drinking water sources or if fish kills occur. Discharge Monitoring Reports (per permit requirements) should be used to notify the Department of non-emergency conditions. Notification to sewage users may be necessary if problem with the system prevents removal of sewage from residences (or other human contact) on an on-going basis. Notification to downstream users may be necessary to protect human health. Notify the Local Office of Emergency Preparedness when hurricane damage repairs are known – Federal Emergency Management Agency (FEMA) may be able to help with costs associated with hurricane damage.

A permittee who wishes to establish the affirmative defense of upset must document the cause of the upset, that the facility was being properly operated at the time of the upset, that notice of the upset that exceeded effluent limitations was submitted to the DEQ and that the permittee took all reasonable steps to minimize or prevent the likelihood of adversely affecting human health or the environment.

September 6, 2008

## **APPENDIX B**

### **TEMPORARY HOUSING SITE SELECTION**

#### Initial Screening

##### **Sanitary Wastewater**

- Attempts must be made to route sanitary wastewater to an existing wastewater collection system or wastewater treatment system whenever feasible. This option requires no permitting action or approval from the Department. However, the primary FEMA contractor shall notify the Department, in writing, of any such discharge to an existing wastewater collection system.
- If a point source discharge is to be made into waters of the state, identify the effluent route to the first named waterbody (a waterbody that is readily recognizable).
- Avoid discharge into a drainage system that goes through or next to a sensitive area. Sensitive areas include, but are not limited to: drainage behind a subdivision, school, or park; drainage that routes the effluent through a private pond or private property; or discharge into a designated outstanding natural resource waterbody.
- If feasible, route effluent to the Mississippi River, or through local drainage to the Mississippi River. If not possible, route effluent directly into the largest waterbody in the vicinity, or into the waterbody's drainage system as close as possible to the waterbody.
- Mobile homes will be rated at 250 gallons per day per mobile home. Travel trailers will be rated at 125 gallons per day per trailer. If washing machines will be made available outside of the mobile home or travel trailer (in a washateria) 800 gallons per day per washing machine will be factored into the allowable capacity. Any combination of the above should be utilized to determine overall gallons per day per site.
- All single point source discharge into waters of the state should be limited to 100,000 gallons per day in order to qualify for rapid coverage under the Louisiana Pollutant Discharge Elimination System General Sanitary Permit. Discharges in exceedence of 100,000 gallons per day will be evaluated by the Department on a case-by-case basis in compliance with water quality standards of the receiving waterbody.

September 6, 2008

## **Waste**

- If feasible, select site that is an existing development, such as, an existing mobile home park, or a site that has existing infrastructure that can be utilized.
- Research existing databases and make on-site physical observations for former municipal waste sites, abandoned hazardous waste sites, former underground storage tank remediation sites, etc. These areas should be avoided as locations for staging or locating temporary housing.

## **Notification after Initial Screening**

- After the initial screening, notify the Department and provide the following information:
  - Location – site name, physical location (911 address if available) and coordinates (i.e. latitude and longitude) shall be provided.
  - Identify the method of wastewater treatment or management. Notification must be made of connection to an existing wastewater collection system or treatment system (provide name of system); collection for off-site disposal (provide disposal name/location); or treatment and discharge to surface waters of the state.
  - If proposal is to discharge to surface waters from a treatment system that did not previously discharge at the proposed location, provide an estimated design flow (based on numbers above) and the effluent discharge route to first named waterbody. (Ex. unnamed ditch, to LA Hwy 19 ditch, to unnamed creek, to White's Bayou, to the Comite River.)
- Notification must be made to the Department at P. O. Box 4313, Baton Rouge, LA 70821-4313 or by fax at (225)219-3309 to the attention of the Administrator of the Water Permits Division.
- Following notification as provided in this section, the Department will provide comments on the proposed site.

## **Storm Water Permit Prior to Construction**

- If dirt work is going to be required at the site, a stormwater general permit for construction may be required.
- If the area to be developed is less than one (1) acre, coverage under a stormwater general permit is not required.

September 6, 2008

- If the area to be developed is at least one (1) acre but less than five (5) acres, coverage under Construction General Permit LAR200000 will be required. A Notice of Intent (NOI) is not required to obtain coverage under this permit. However, a storm water pollution prevention plan (SWPPP) must be prepared and implemented at the time construction begins. A copy of the permit is available at <http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/LAR200000.pdf>. A Notice of Termination (NOT) is required when construction is complete.
- If the area to be developed is five (5) acres or greater, coverage under the Construction General Permit, LAR100000, will be required. Submittal of a NOI (CSW-S) is required prior to commencement of construction. The NOI can be found at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=1837>. A copy of the general permit can be found at <http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/LAR100000.pdf>. Submission of an NOT is required when construction is complete.
- Close attention must be given to the Historic Preservation sections of each of the construction general permits for any construction at previously undeveloped sites.
- Coverage under the construction general permits is necessary prior to construction. However, authorization to discharge as described is not required before construction, but is required before the discharge begins.

### Registration for Authorization for Direct Discharges

- For discharges totaling less than 100,000 gallons per day, a Notice of Intent (NOI), form WPS-G, must be submitted to the Department at the above address. The NOI is available at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=1837>. Copies of LPDES Sanitary General Permits are available on the Department's web site at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=245>.
- Proposed discharges greater than 100,000 and particular discharges going directly into the Mississippi may be granted authorization to discharge under an Administrative Order or an individual LPDES permit on a case-by-case basis. If an Administrative Order is granted, application for a permit shall be made to the Department within thirty (30) days. Please contact the Department for additional information if this applies to your site.
- Contact for coverage under a Sanitary General Permit can be made to Tom Killeen, Manager Municipal and General Permits Section @ (225) 219-3181 or by e-mail at [tom.killeen@la.gov](mailto:tom.killeen@la.gov).

September 6, 2008

- For FEMA temporary housing sites, the primary FEMA contractor shall apply for and be the responsible entity for the permit, operation, maintenance and reporting requirements to LDEQ.

### Additional Recommendations for the Housing Sites

#### **Water**

- Wastewater treatment plants (WWTP) must be operated by a certified operator.
- WWTP's must be properly operated and maintained at all times.
- Disinfection of effluent must be provided.
- Permittee should implement a program to inform residents of things that might be harmful to the WWTP such as the introduction of grease or large amounts of household chemicals to the treatment plant.

#### **Waste**

- Provide for collection and disposal of solid waste.
- Provisions should be made for proper disposal of household hazardous waste during the operation of the facility and as residents leave the facility.
- It is recommended that the residents be informed on the benefits and requirements of proper disposal of solid waste and household hazardous waste.

#### **Recycling**

- Whenever feasible, provide for recycling, such as, providing a recycling center on site with appropriate recycle containers.
- Inform residents on the proper procedures for recycling household materials.
- Recycling incentives for residents can prove beneficial.

#### **Open Burning**

- Open burning at these sites should be prohibited. This does not include charcoal or gas grills.

September 6, 2008

### **Site Closure**

- Once all the residents have left, the site must be closed.
- All solid and household hazardous waste shall be removed and properly disposed.
- If a WWTP was used for treatment of sanitary wastewater, it shall be removed. A request for termination of coverage under the permit or Administrative Order issued for coverage must be submitted to the Department.
- Notification of closure must be made to the Department through SPOC (225-219-3640 or Toll Free 1-888-763-5424). The Department will approve the site for closure.

September 6, 2008

## **APPENDIX C**

### **REQUIREMENTS FOR THE CONDITIONAL AUTHORIZATION OF DISCHARGES OF GRAY WATER TO SURFACE WATERS OF THE STATE OF LOUISIANA**

For purposes of these requirements, gray water shall be defined as wastewaters from all fixtures except toilets, including but not limited to wash waters from kitchen, bathroom, and laundry sinks, tubs, and washers.

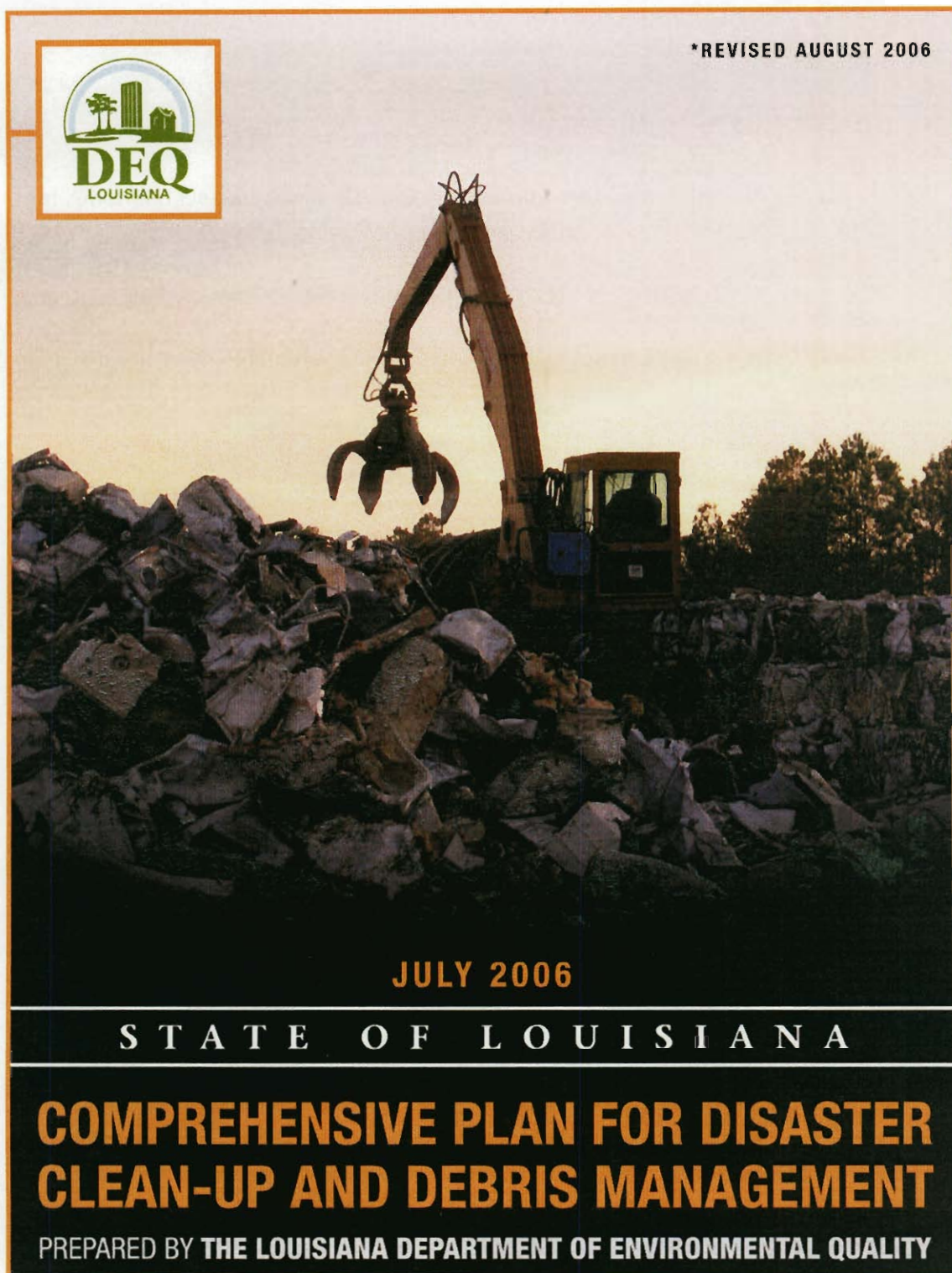
Unless the Department gives written notice to the contrary, gray water discharges to surface waters of the State, within the Emergency Areas, are hereby authorized, if the following requirements are met:

- Attempts must be made to route gray water to an existing wastewater collection system or wastewater treatment system whenever possible.
- Discharges of gray water shall be made directly into a ditch, drainage or waterbody where feasible.
- Human contact with gray water discharges shall be avoided to the greatest extent possible.
- Surface application of gray water shall not be used for irrigation of food plants.
- The discharge of gray water may not contain human waste or any chemicals derived from activities such as cleaning car parts, washing greasy or oily rags, disposing of waste solutions, or soiled or infectious garments.
- The application of gray water shall be managed to minimize standing water on the ground surface.
- Any gray water storage tank must be covered to restrict access and to eliminate habitat for mosquitoes or other vectors.

September 6, 2008

## APPENDIX D

### Hurricane Debris Management Plan



September 6, 2008

## **Purpose**

The purpose of the Comprehensive Plan for Disaster Clean-up and Debris Management is to establish a framework to facilitate the proper management of debris generated by natural disasters within the state. The goal is to facilitate a reasonable, efficient and prompt recovery from such disasters and be protective of human health and the environment. The plan includes flexible and innovative approaches to address disaster-generated debris issues. It adheres to the Louisiana Department of Environmental Quality's (LDEQ) mission of protecting human health and the environment to the fullest extent possible under the circumstances. The plan allows LDEQ the flexibility to consider, approve or disapprove reasonable requests for authorizations, variances, and waivers as needed for rapid and environmentally sound waste management, recycling, and disposal. A primary objective of the plan is to conserve landfill capacity and to protect natural resources to the maximum extent practicable.

Pursuant to the laws of the state of Louisiana, the Secretary of the LDEQ is granted the authority to declare an emergency upon receipt of evidence of an incident that requires immediate action to prevent irreparable damage to the environment and serious threats to life or safety. Upon declaring that an emergency exists, the Secretary may issue such permits, variances or other orders as necessary to respond to the emergency, and such orders are effective immediately. With the declaration of an emergency, the Secretary issues an administrative order which provides specific measures authorized within the timeframe of the emergency. Those specific measures contained in the emergency order serve as relief for the duration of the order from the regulatory and proprietary requirements of the LDEQ. However, the measures do not provide relief from the requirements of other federal, state, and local agencies.

Thus, the regulatory flexibility to expeditiously manage disaster-generated debris in the manner set forth in this plan is authorized upon issuance of an Emergency Declaration and Administrative Order by the LDEQ Secretary. Moreover, while this plan is consistent with state and federal law, it does not supersede any ordinance adopted by a local governing authority.

## **Background**

Louisiana, along with its Gulf Coast neighbors, experienced an unprecedented disaster when Hurricane Katrina came ashore on August 29, 2005. Along with the human tragedies, the storm left in its wake more than 22 million tons or 55 million cubic yards of debris, including thousands of orphan drums of unknown origin and content, over 350 thousand flooded and abandoned cars, over 60 thousand damaged vessels, over 1.5 million units of white goods, over 500 thousand units of electronic goods, 140 to 160 thousand flooded homes and recovery problems never before faced by the citizens of this state or country. On September 23-24, 2005, Hurricane Rita struck the southwest part of the state, leaving another 2.4 million tons or 6 million cubic yards of debris, flooded cars, damaged vessels, orphan drums and thousands of electronic and white goods. The storm surge from Hurricane Rita devastated the parishes of Cameron, Vermilion and Calcasieu and re-flooded parts of St. Bernard Parish and the Lower 9th Ward in Orleans Parish.

September 6, 2008

Hurricane Katrina's wrath was felt in Louisiana, Mississippi and Alabama. Of the combined damage from the three states, 75 percent of the destruction was in Louisiana.



The magnitude of the tasks that faced the state after such destruction made it apparent that a proactive posture is needed to prepare for future catastrophic events. This Comprehensive Plan for Disaster Clean-up and Debris Management documents some of the lessons learned and extends beyond those lessons to allow this state to formulate a plan that allows it to address future disasters in a cohesive, organized and efficient manner, while ensuring protection of public health and the environment.

The removal and proper management of debris after these two hurricanes was and continues to be a critical element of the

recovery efforts.<sup>1</sup> Without debris removal, there can be little rebuilding and repopulating. All kinds of debris, household contents, houses, cars, vessels, trees, white goods, electronics and more must be removed from the streets in order for citizens to return to their homes and businesses. Many homes and other structures need to be completely demolished to allow the recovery to continue.

The LDEQ prepared a Hurricane Katrina Debris Management Plan which was released on September 28, 2005, and revised on October 14, 2005. Additionally during the 2006 Regular Session of the Louisiana Legislature, Senate Bill 583 (SB 583, Act 662) was enacted. SB 583 directs the LDEQ to develop and implement a comprehensive debris management plan for certain debris generated by natural disasters. The bill states the goal of the comprehensive debris management plan is to "reuse and recycle material, including the removal of aluminum from debris, in an environmentally beneficial manner and to divert debris from disposal in landfills to the maximum extent practical and efficient which is protective of human health and the environment." Among other things, SB 583 dictates the use of the following debris management practices, in order of priority, to the extent they are "appropriate, practical, efficient, timely and have available funding: recycling and composting; weight reduction; volume reduction; incineration or co-generation; and land disposal."

The LDEQ, through this plan, utilizes portions of its 2005 Debris Management Plan in conjunction with the dictates of SB 583. In other words, this plan builds upon LDEQ's existing plan and is intended to be a living document. As such, it will be amended, as necessary, to address specific challenges as they arise.

<sup>1</sup> Hurricane Katrina generated more than 22 million tons of C&D debris. The largest landfill in Louisiana typically processes about one million tons a year.

September 6, 2008

## **Recycling and Beneficial Use**

This plan is designed to encompass LDEQ's goal of reduction, conservation and management relative to debris management. The plan promotes reduction of the debris stream utilizing chipping, grinding, recycling or other methodologies. It promotes conservation and management by ensuring that adequate capacity exists for disposal and management of disaster-generated debris, including that generated by redevelopment and repopulation by businesses and residents. The plan also encompasses the legislative goal to reduce debris 50% by volume and 50% by weight prior to disposal in a landfill.

Local governments should identify sites where recycling and beneficial use options may be utilized. Local governments should have standby contracts to provide for the oversight, implementation and operation of recycling and beneficial use projects associated with disaster-generated debris activities. The standby contracts should include provisions to ensure that marketing outlets are available to receive and process the material resulting from the recycling and beneficial use activities. The recycling and beneficial use options provided below and later in this document will contribute to the plan goals.

Bricks and concrete removed from homes during the demolition process may be recycled utilizing stone crushing equipment. Equipment utilized for this purpose shall be operated in accordance with manufacturers' instructions and any applicable LDEQ correspondence or guidance.

## **Debris Management Definitions<sup>2</sup>**

### **Construction and Demolition Debris –**

Non-hazardous waste generally considered not water-soluble, including but not limited to:

- Metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster), or lumber from a construction or demolition project
- Furniture, carpet, painted or stained lumber contained in the demolished buildings
- The incidental mixture of construction and demolition debris with asbestos-contaminated waste. (i.e., incidental asbestos-contaminated debris that cannot be extracted from the demolition debris)
- Yard Trash (vegetative matter resulting from landscaping and yard maintenance, including tree and shrubbery leaves and limbs, grass clippings, and flowers.)

**Debris Management Site** – is a location that has been identified by the local government and evaluated and approved by LDEQ for the purposes of staging, reduction or final disposal of disaster-generated debris.

The activities conducted at these sites might include:

- Woodwaste Chipping and Grinding and/or Composting Woodwaste Burning Operations
- Construction and Demolition Debris Staging or Disposal
- Staging of Vessels and Vehicles
- Staging of Special Debris (Munitions and Ordnance, Household Hazardous Materials, Liquefied Petroleum Gas Tanks, Electronic Goods, White Goods and Tires)

<sup>2</sup> These definitions apply to debris management activities related specifically to the emergency response activities associated with the aftermath of a natural disaster (e.g. a hurricane, tornado, etc.)

September 6, 2008

**Vegetative Debris** – is green woody material consisting of trees, limbs, and branches, generated by the clearing of downed and damaged trees. It does not include processed wood or other lumber used in construction.

### **Debris Management Sites**

In general, local governments will need to determine appropriate sites for the following temporary activities: staging and transfer of construction and demolition (C&D) debris; staging of vehicles and vessels; staging of household hazardous waste; chipping, grinding and/or burning of vegetative debris; composting of vegetative debris; staging of munitions and ordnances; staging of white goods, electronic goods and other consumer items; and recycling and beneficial use activities. Use of a site as a permanent disposal site may also be considered.

The sites that were approved by LDEQ for use after Hurricanes Katrina and Rita and which met all applicable monitoring and operational requirements, do not need to obtain prior approval from LDEQ for use following a future disaster provided there have been no significant changes in surrounding land use and potential receptors, and the site's authorization to operate was not rescinded or revoked by LDEQ as a result of non-compliant activity during its previous use. The sites must still comply with the criteria listed in the section below. The sites will be automatically approved and available for use by local and parish governments to manage disaster-generated debris. This approval is ONLY for the purposes for which they were previously approved. For instance, if a site was approved for staging debris, it is automatically approved for staging debris for future disasters, but it IS NOT approved for another use such as chipping and burning of vegetative debris. If a site is reactivated, the local governing authority shall notify LDEQ within 5 days of its reactivation. LDEQ will notify the local governing authority if a site cannot be approved for use as previously approved.

### **Finding the Right Location**

When selecting a proposed debris management site, the local government should consider the following:

- What is the proposed use for this site?
- Is it easily accessible?
- Is it removed from obstructions such as power lines and pipelines?
- Is the site considered to be a wetland area, as defined by the U.S. Army Corps of Engineers?
- Is the general site topography conducive to the activity that will be conducted there?
- Are there nearby residences and/or businesses that will be inconvenienced or adversely affected by use of this site?
- Is the size sufficient for its intended use?
- Is the soil type suitable for its intended use?
- Is the site a previously authorized location that is being reactivated for use?
- Is the site located near water bodies such as rivers, lakes or streams and their proximity to occupied dwellings?
- What is its proximity to the impacted area?

In addition to the criteria listed above, LDEQ will evaluate proposed burn sites based on their proximity to water bodies such as rivers, lakes or streams, and occupied dwellings.

September 6, 2008

### **Site Approval**

In order for a location to be considered by the LDEQ as a debris management site, the local government must submit an Emergency Disaster Cleanup Site Request Form to LDEQ. The form is available on LDEQ's website at <http://www.deq.louisiana.gov/portal/tabid/259/Default.aspx>. Authorizations may be issued prior to or following a site inspection by LDEQ personnel for staging areas to be used for temporary storage and chipping, grinding or burning of disaster-generated debris. Sites that have been identified by local government and evaluated and authorized by LDEQ for use in response to a hurricane disaster will be provided on LDEQ's website. If the site is approved, LDEQ will inform the local government and will document the approval, usually by letter. The letter will also contain any restrictions or operational conditions that must be adhered to relative to the site. Operational conditions will be outlined in an Interim Operational Plan.

### **Site Closure**

Each temporary debris management site with the exception of authorized vegetative debris and C&D debris disposal sites, and sites where ash is land-applied, will eventually to the extent practicable, have disaster-related debris cleared and be restored to its previous condition and use.<sup>3</sup> Closure must be in accordance with approved LDEQ practices and/or the Interim Operational Plan. Sampling of soil and/or ash that is left at the site may be required by the LDEQ. The local governing authority will be required to take necessary steps to ensure that no environmental contamination is left on-site. Monitoring and/or remediation of a site must be coordinated through the LDEQ's Office of Environmental Assessment. Closure should be accomplished within the time limits established by the LDEQ.

### **C&D Debris Management**

LDEQ recognizes that decisions on the disposition of wastes and debris need to be made at the collection point. Use of best professional judgment will be necessary to determine the ultimate disposition of collected material. Contractors chosen by the local governing authority, or by state or federal agencies, should possess knowledge of applicable regulations and of any LDEQ Declarations of Emergency and Administrative Order in order to correctly route waste streams to appropriate sites and/or facilities.

### **C&D Debris Staging/Transfer**

LDEQ expects a considerable amount of the disaster-generated C&D debris to be staged at temporary sites and transported to permitted Type III facilities or to be placed into LDEQ authorized C&D debris disposal sites. Materials approved for receipt at these facilities include roof shingles, roofing materials, carpet, insulation, wallboard, treated and painted lumber, etc.

Site operations will comply with an Interim Operational Plan provided by the LDEQ. It is the responsibility of the local government to provide this Interim Operational Plan to any entity that may be charged with operation of the site.

Arrangements should be made to segregate unsuitable materials such as household garbage, white goods, asbestos containing materials (ACMs), and household hazardous waste. These materials should be placed in containers and transported to facilities that are approved for their receipt. If more than de minimus amounts of these wastes are present, the waste should be handled in a manner consistent with the most stringent management technique necessary for the waste stream.

### **C&D Debris Grinding**

In order to contribute to the reduction in volume of C&D debris that may be destined for disposal,

<sup>3</sup> If the site is used for C&D debris disposal and the debris will remain in place, site closure shall be in accordance with the Interim Plan and specific tasks such as deed recordation must be accomplished. If the site is used for vegetative debris burning, the ash generated may be land applied.

September 6, 2008

grinding of C&D debris may be proposed for utilization by the local government. LDEQ will endeavor to ensure that the location chosen for this activity is thoroughly evaluated to make any impacts as minimal as possible. Grinding of C&D debris will help ensure reduction in the volume of material to be hauled to landfills for ultimate disposal.

C&D debris grinding shall be performed in accordance with a plan that has been prepared by the local government and reviewed and approved by LDEQ. It is the responsibility of local government to provide the plan to any entity that may be charged with operation of the site. All equipment (grinders, chippers, air curtain burners) shall be operated in accordance with manufacturers' instructions and any applicable LDEQ permits or directives.

Local, state and federal partners associated with the C&D debris grinding operation will be advised of locations that have been approved for this purpose. All sites must be operated in accordance with the LDEQ-provided Interim Operational Plan or other LDEQ correspondence or guidance.

#### **C&D Debris Burning**

In order to contribute to the volume and weight reduction of C&D debris that may be destined for disposal, the burning of C&D debris may be proposed for utilization by the local government. As dictated by circumstances and contingent upon applicable local, state and federal requirements, occasions may arise where LDEQ will allow C&D debris to be burned. The burning of C&D debris may be considered on a case-by-case basis, after review of the specific circumstances of the emergency. Any burning must utilize equipment to reduce emissions if the LDEQ and respective local governing authority deem the use of equipment necessary to protect public health and the environment.

LDEQ will endeavor to ensure that the location chosen by the local governmental entity for this activity is thoroughly evaluated and deemed acceptable in order to minimize, to the greatest extent possible, any potential impacts to the environment. The burning of C&D debris shall be performed in accordance with a plan that has been prepared by the local government and reviewed and approved by the LDEQ. It is the responsibility of local government to provide the plan to any entity that may be charged with operation of the site. All equipment (grinders, chippers, air curtain pit burners) shall be operated in accordance with manufacturers' instructions and any applicable LDEQ permit.

Local, state and federal partners associated with the C&D burning operation will be advised of locations that have been approved for this purpose. All sites must be operated in accordance with the LDEQ-provided Interim Operational Plan or other LDEQ correspondence or guidance.

Ash generated as a result of burning of C&D debris must be analyzed to determine if contaminants are present that would render the material unsuitable for use as a soil amendment, or would render the material a hazardous waste. Disposal or use of this ash can occur ONLY AFTER review of analytical results by LDEQ.

September 6, 2008

#### **C&D Debris Disposal**

To the extent possible and practicable, C&D debris will be disposed of in permitted C&D Debris Landfills. However, due to the devastation caused by a natural disaster, it may be necessary to allow accumulation and disposal of C&D debris at sites that are deemed appropriate but have not had time to go through the normal permitting process. LDEQ will evaluate requests by local governments and, if it is determined to be warranted for an efficient, expeditious and environmentally safe response, will allow disposal at authorized temporary C&D disposal sites. If approved, site operations must comply with the Interim Operational Plan provided by LDEQ.

#### **Vegetative Debris Management**

Every effort will be made to consolidate material from fallen trees and other vegetative debris in an attempt to beneficially use as much of this material as possible. Where local industries can utilize the wood for fuel, it will be used in that manner. Material will be chipped or otherwise reduced in volume to allow for composting or other beneficial reuse. This debris may be used in coastal restoration projects, as compost, or as fuel. It may not be disposed of in a landfill as the first option, but may be used as a component of the cover system for a landfill or a means for providing erosion control. The burning of vegetative debris may be allowed on a case-by-case basis if it is deemed to be necessary.

#### **Vegetative Staging/Grinding/Chipping/Composting**

Materials approved for receipt at these sites include vegetative debris such as yard waste, trees, limbs, stumps, branches and untreated or unpainted wood. Sites should be identified as chipping/grinding/composting sites and/or burn sites. All sites must be operated in accordance with the LDEQ-provided Interim Operational Plan or other LDEQ correspondence or guidance. It is the responsibility of local government to provide the LDEQ plan, correspondence or guidance to any entity that may be charged with operation of the site. All equipment (grinders, chippers, air curtain burners) shall be operated in accordance with manufacturers' instructions and any applicable LDEQ permit.

Chipping and grinding provide material for use in landscape mulch, compost preparation, coastal stabilization/restoration projects, and industrial boiler fuel. These options will be the top priorities for uses of vegetative debris.

In preparing compost and/or mulch piles, care should be taken to reduce the potential for spontaneous combustion. Placing ground organic debris into piles can result in rapid microbial decomposition that generates heat and volatile gases. Temperatures in large piles containing readily degradable debris can rise to greater than 160° F, increasing the chance of spontaneous combustion.

Spontaneous combustion is more likely in large, dense piles of debris under dry, windy conditions. Maintaining windrows with a height of less than 6 feet and base width of less than 10 feet provides greater surface area for dissipation of heat and volatile gases, thereby minimizing the risks of spontaneous combustion.

September 6, 2008

Turning piles when temperatures reach 160 degrees can also reduce the potential for spontaneous combustion by allowing accumulated heat and gases to escape. Turning piles when temperatures decline can restore microbial activity and composting temperatures. Optimal moisture should be maintained to reduce combustibility. As a rule, optimal moisture is obtained when squeezing a handful of material yields a drop or two of water. Shredded leafy debris will decompose more rapidly and retain more heat than wood chips. Sufficient wood chips or other bulky materials should be mixed with leafy material to ensure rapid diffusion of heat and gases during the early stages of decomposition.

Large piles or windrows should be located away from wooded areas, power lines and structures. They should be accessible to fire fighting equipment, if a fire were to occur.

#### **Vegetative Debris Burn Sites**

Proximity to roads and dwellings is of particular importance in the selection of sites for this activity. LDEQ may approve open burning of vegetative debris on a case-by-case basis. As with all proposed debris management sites, open burning locations must be approved by LDEQ in advance of their use. Even though, burning of vegetative debris is a less desirable option than the reuse of that material in another manner as described above, local governments may utilize open burning during the initial disaster response for specified timeframe (e.g. 2 to 4 weeks) to allow for the reestablishment of critical arteries for transportation, emergency response and governmental operations. In addition where continued burning is necessary, any burning shall utilize equipment to efficiently combust waste and reduce emissions if LDEQ or local governing authority deem the use of equipment necessary to protect public health and the environment. Local, state and federal partners associated with the vegetative debris burning operation will be advised of locations that have been approved for this purpose. All sites must be operated in accordance with the LDEQ-provided Interim Operational Plan or other LDEQ correspondence or guidance.

Air Curtain Pit Burners (Air Curtains or Pit Burners) should be operated in accordance with manufacturers' instructions and with any applicable LDEQ permits or directives.

Ash from Vegetative Debris Burn Sites may be land applied on site or off site. Whenever possible, soil test data and analysis of the ash should be available to determine appropriate application rates. Ash should not be applied during periods of high winds. Ash should not be applied within 25 feet of surface waters or ditches or drains on vegetated sites. These distances should be doubled on sites that are not vegetated, and the ash should be promptly incorporated into the soil. As an alternative to land application, ash from combustion of clean vegetative debris may be utilized as a blending or stabilization component, chemical activator, replacement component in masonry products or a component of pozzolanic concrete. Ash that cannot be land applied or used in an alternative manner shall be disposed at a permitted solid waste landfill.

Assistance in obtaining soil test data and waste analysis of ash should be available through parish offices of the LSU Cooperative Extension Service.

#### **Vegetative Debris Disposal**

To the extent possible and practicable, vegetative debris that cannot be beneficially used will be disposed of in permitted landfills. However, due to the devastation caused by a natural disaster, it may be necessary to allow accumulation and disposal of vegetative/woody debris at sites that are deemed appropriate but have not had time to go through the normal permitting process. LDEQ will evaluate requests by local governments and, if it is determined to be warranted for an efficient, expeditious and environmentally safe response, will allow disposal at authorized temporary vegetative/woody debris disposal sites. If approved, operations must comply with the Interim Operational Plan provided by LDEQ.

September 6, 2008

Of the total green and woody debris intended for final disposal in a landfill, fifty percent shall be reduced by volume and fifty percent by weight prior to transport to a landfill. This debris may be used in coastal restoration projects, as compost, or as fuel. It may not be disposed of in a landfill as the first option, but may be used as a component of the cover system for a landfill or a means for providing erosion control.

## **Marsh Debris Management**

### **Retrievable Debris**



Retrievable debris items (e.g., vessels, containers, orphan drums, propane tanks, vessels, vegetative/woody matter, white goods, etc.) that are not in a marsh but are located in or near land or a water-body adjacent to a wetland marsh area shall be retrieved for transport to an authorized debris management site. Those items will then be either recycled and/or disposed in accordance with this plan.

Retrievable debris items that are in the wetland marsh area shall be retrieved in accordance with ESF-10 protocol<sup>4</sup> and transported to an authorized debris management area. Those items will then be either recycled and/or disposed in accordance with this plan.

The debris should, if possible, be retrieved during the initial recovery operation, managed and transported to facilities that are approved for their receipt and management. These debris recovery and removal activities are not expected to result in appreciable habitat disturbance.

### **Irretrievable Debris**

Irretrievable debris items that are located in the marsh, especially sensitive marsh areas, shall be managed in accordance with ESF-10 protocol. These debris management activities are expected to result in appreciable habitat disturbance and therefore, would require an expedited or emergency trustee consultation.

<sup>4</sup> ESF-10 – Emergency Support Function #10 describes the lead coordination roles, the division and specification of responsibilities among federal agencies, and the national, regional, and onsite response organizations, personnel, and resources that may be used to support response actions. ESF #10 is applicable to all federal departments and agencies with responsibilities and assets to support state, local, and tribal response to actual or potential oil or hazardous materials incidents.

September 6, 2008

### **Marsh Burning**

Burning is a practice utilized in marsh areas, especially in areas designated as a refuge. Refuge areas utilize marsh fires on a 2 to 3 year rotational schedule to manage the accumulation of marsh grass and other vegetative/woody debris. The refuges and other entities (i.e. private, parish, state, or federal) owning marsh areas that are non-oil contaminated areas may utilize this method to address the accumulations of marshy grass and debris generated as a result of a natural disaster. The utilization of a marsh fire to address the disaster-generated debris must be communicated to and coordinated with local, state and federal entities (i.e., parish government, property owners, Department of Natural Resources, Department of Wildlife and Fisheries, Department of Environmental Quality, Environmental Protection Agency, United States Coast Guard, United States Army Corps of Engineers, Parish/Local Fire Department) participating in the disaster response and management activities. The plans and procedures pertaining to marsh burning are to be evaluated and authorized by all entities involved in the effort. The plan must take into consideration the potential presence of hazardous, flammable, ignitable or reactive materials that could impact the marsh burning operation.

This is needed so that the proper environmental and personal safety precautions will be set forth in the marsh burning plans and procedures.

### **Transportation in the Marsh**

The specific methods of maneuvering transport vehicles (i.e. marsh buggies, pontoons, etc.) in the various areas of the marsh for the purposes of debris management and retrieval activities will need the concurrence of the Department of Natural Resources (Coastal Management), the Louisiana Department of Wildlife and Fisheries and other pertinent state level agencies. This coordination is also needed to address potential navigation hazards or obstructions posed by the presence of disaster-generated debris in the marsh areas.

### **Special Debris Management**

#### **Munitions and Ordnance**

Munitions or ordnance associated with the aftermath of a disaster that remain unexploded either by malfunction, design, or any other cause, shall be handled by an Emergency Response Specialist trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques.

Either the Louisiana State Police or U.S. Environmental Protection Agency's (EPA) regional office staff will be the project manager for disaster-related activities, projects, plans and contracts associated with explosives, munitions, and ordnance. Explosives or munitions emergency response specialists include Department of Defense emergency explosive ordnance disposal, technical escort unit, DOD-certified civilian or contractor personnel, and other federal, state, or local government or civilian personnel similarly trained in explosives or munitions emergency responses.

Munitions and ordnance shall be managed in a manner that shall minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated runoff to the soil, groundwater, surface water and atmosphere. They shall be stored in accordance with a standard operating procedure specifying procedures to ensure safety, security, and environmental protection; and transported to an LDEQ approved or permitted hazardous waste treatment, storage, or disposal facility.

### **Household Hazardous Materials**

September 6, 2008

Local governments should require that contractors demolishing condemned housing units, to the greatest extent practicable, remove and properly handle household hazardous materials such as:



paints and varnishes, solvent, acids, pesticides, cleaning fluids, pool chemicals, used motor oil, propane tanks, mercury thermostats, liquid mercury, mercury containing devices, smoke detectors and refrigerants.

Local governments should request or set up drop off collection sites for citizens. Precautions must be taken at these sites to prevent the release of materials into the environment. Such precautions include providing lined temporary storage areas for accumulation of the material.

#### **Liquefied Petroleum Gas Tanks**

Liquefied petroleum gas tanks typically contain propane gas. Propane is a flammable gas that is sometimes generically referred to as LP-Gas, LPG, or Liquefied Petroleum Gas. LPG is typically a propane-butane mixture. Propane might also contain small amounts of other flammable gasses, such as, ethane, ethylene, propylene, isobutane, or butylenes. LPG tanks may be found in a number of urban and rural environments such as motor homes, travel trailers, grills, camp stoves, lanterns, etc. Liquefied petroleum gas is stored under pressure. The gas will leak from any joint or connection which is not sealed properly.

Liquefied petroleum gas is heavier than air and any significant leak will accumulate in any low-lying area such as depressions in the ground, drains or pits. Since LPG is stored in two phases, liquid and gaseous, there is potential for either a liquid leak or a gas leak. If the LPG leak is a gas leak it may not be seen (because LPG is colorless), except where the leak is of sufficient size to be seen shimmering in the air. When a liquid LPG leak occurs, the release will be seen as a patch of ice around the area of the leak, or as a jet of white liquid. This white appearance is due to the cooling effect created by the rapid expansion of the LPG liquid into a gas. The condensing atmospheric moisture makes the leak visible. In concentrated amounts and in uncontrolled conditions, LPG has the potential to create a fire or an explosion.

Debris workers must be observant for LPG tanks. Basically, there are two types of tanks found; they are portable and bulk. Portable, consumer-type tanks can be sized from 4 to 40 pounds, though the most common is the 20 pound tank. Bulk tanks are often 100 to several hundred thousand pounds.

It is vital that LPG tanks be located. Portable tanks can be re-located to a staging area for recertification, refurbishment or dismantling. Bulk tanks should not be moved except by properly train personnel. Tanks measuring 25 gallons and larger should be listed in the LPG Commission database.

September 6, 2008

### Vehicles and Vessels



Local governments need to propose an aggregation point for the temporary storage of abandoned vessels and vehicles. These sites should be secure, fenced and lighted. LDEQ shall evaluate and, if appropriate, authorize the aggregation site. The Office of State Purchasing will negotiate contracts related to the recovery and recycling of abandoned vehicles. The Louisiana Department of Transportation and Development will be the project manager for the vehicle recovery and recycling project associated with the disaster response.

Vehicles and vessels brought to the storage areas should be inventoried by license plate, make, model, color and vehicle identification

number. They shall be staged and site tagged for easy retrieval. Scrap vehicles should be dismantled and properly recycled. The following materials must be recovered: gasoline and diesel fuel, refrigerants, lubricating oils, mercury ABS switches, mercury convenience switches, lead acid batteries, brake and transmission fluid, antifreeze and tires. Propane tanks and large appliances in recreational vehicles should be removed.

Vessels deemed for scrap should be crushed to reduce volume for easier handling and management, shredded and properly recycled when possible. The following materials must be recovered: gasoline and diesel fuel, refrigerants, lubricating oils, mercury bilge switches, propane tanks, large appliances, lead acid batteries, transmission fluid and electronics such as radar sets, radios, GPS units, and depth finders.

### Electronic Goods

In order to contribute to increased recycling and to reduce the volume of waste disposed in landfills, electronic waste (electronic goods or e-goods) should be segregated, to the greatest extent possible, at the curbside. Local governments should set up drop-off collection sites for citizens for electronic goods. Local governments should require contractors demolishing condemned structures, to the greatest extent practicable, to remove and properly handle televisions, computers/computer peripherals, audio/video equipment, VCR's, DVD players, video cameras, telephones, fax and copy machines, cell phones, wireless devices and video game consoles, including those at commercial locations.

If staged at an authorized or permitted solid waste facility prior to scrapping/recycling, electronic goods shall be stored in an area separate from other solid wastes.

September 6, 2008

### **White Goods**

Local governments should set up drop-off collection sites for citizens for large appliances (white goods). Local governments should require contractors demolishing condemned structures, to the greatest extent practicable, to remove and properly handle household appliances, televisions and computers, including refrigeration and freezing units at commercial locations.



If staged at an authorized or permitted solid waste facility prior to scrapping/recycling, white goods (i.e. unsalvageable refrigerators, freezers, air conditioners, stoves, range tops, etc) shall be stored in an area separate from other solid wastes and shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility within 90 days. Refrigerant Containing Appliances (RCAs) such as refrigerators, freezers and air conditioning window units shall be handled in a manner, which will prevent a release of refrigerants.

RCAs will be delivered to approved collection sites for refrigerant removal. EPA certified refrigeration technicians will remove

refrigerants and handle in accordance with EPA standards. Refrigerants shall be removed from condemned structures with split system air conditioning units prior to demolition. Only EPA certified refrigeration technicians will remove and handle refrigerants in accordance with EPA standards. Condensing units will then be removed from site and sent to an appropriate collection site. When possible, evaporator and air handling units should be removed and sent to an appropriate collection site.

### **Asbestos**

#### **Licenses Required by the Louisiana State Licensing Board for Contractors (LSLBC):**

Contractors performing asbestos abatement must be licensed by the Louisiana State Licensing Board for Contractors. Licensing for asbestos abatement is established under the Commercial license with a specialty in Asbestos. Additional information for licensing can be found at HTU<http://www.lslbc.louisiana.gov/index.asp>UTH or by calling (225) 765-2301.

A licensing requirement is that one Supervisor/Contractor acting as the responsible individual for the company must be accredited with LDEQ. Following approval from the Louisiana State Licensing Board for Contractors, all abatement workers/supervisors performing work in Louisiana are required to be accredited by LDEQ. The LDEQ Asbestos Accreditation Form (AAC-1) can be found at HTU<http://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/AAC-1%20Asb%20App%20Form%2020106.doc>UTH. Note that there is a fee for emergency processing (3 days or less).

September 6, 2008

**Asbestos Accreditations and Notifications Required by LDEQ:**

The Louisiana Air Quality regulations, Chapters 27 and 51, Section 5151, contain the requirements for Asbestos Demolition and Renovation abatement activities and accreditation for Workers, Supervisor/Contractors (including air monitoring personnel), Inspectors, Management Planners, and Project Designers. These regulations may be found at [HTUhttp://www.deq.louisiana.gov/portal/Portals/0/planning/regs/title33/33v03.doc](http://www.deq.louisiana.gov/portal/Portals/0/planning/regs/title33/33v03.doc)UTH.

All personnel working as Asbestos Workers, Supervisor/Contractors (including air monitoring personnel), Inspectors, Management Planners, or Project Designers must be accredited by LDEQ. Initial and subsequent Asbestos Hazard Emergency Response Act (AHERA) training by an EPA recognized training provider or a training provider recognized by a state program authorized by EPA is required for accreditation. A picture I.D. card and the appropriate fee(s) are also required. The LDEQ Asbestos Accreditation Application form can be found at [HTUhttp://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/AAC-1%20Asb%20App%20Form%2020106.doc](http://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/AAC-1%20Asb%20App%20Form%2020106.doc)UTH.

Also, a list of Louisiana recognized training providers can be found at <http://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/Current%20Asb%20Course%20Schedule%206706.pdf>.

The LDEQ is capable of expediting the accreditation process for the disaster affected areas, including disaster related abatement, and is able to provide almost immediate accreditation by letter, if necessary. Follow up certificates are then generated as soon as possible for all approved applicants. During the review process, if an applicant does not submit the necessary credentials, additional paperwork will be requested. If the requested paperwork is not submitted, the accreditation for that person will be halted.

The LDEQ Asbestos Notification form for Demolition or Renovation can be found at [HTUhttp://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/AAC-2%20Asb%20Not%20Form%20022106.doc](http://www.deq.louisiana.gov/portal/Portals/0/permits/AsbestosandLead/AAC-2%20Asb%20Not%20Form%20022106.doc)UTH

**Complying with the LESHAP Asbestos Regulations:**

The purpose of this portion of this document is to provide guidance for compliance with the standards for the demolition and renovation activity pursuant to the Louisiana Emission Standard for Hazardous Air Pollutants (LESHAP) for asbestos (LAC 33:III.Chapter 51.Subchapter M). Subchapter M has been deemed to be at least as stringent as the federal regulation and the LDEQ has received delegation of the National Emissions Standard for Hazardous Air Pollutants program from the US EPA. The LDEQ has used EPA guidance to provide similar guidance in the wake of Hurricanes Katrina and Rita in the determination of compliance with Chapter 51 (and through delegation, the NESHAP). In the aftermath of Hurricanes Katrina and Rita, LDEQ also received "No Action Assurance" letters from EPA that provided targeted flexibility regarding compliance with NESHAP regulations. Should the nature or magnitude of the disaster warrant, LDEQ will initiate contact with EPA for similar regulatory flexibility.

**General Guidelines for Demolition and Related Activities:**

Best Management Practices – Conduct all asbestos demolition, LDEQ approved grinding of non-regulated asbestos containing material, transportation, and disposal activities using best management practices and engineering controls to control emissions. These include, but are not limited to, wetting structures/materials before, during and after demolition or grinding, controlled collapse of walls, and taking all reasonable steps to avoid running over asbestos containing material with heavy equipment.

September 6, 2008

**Site Security** – For all demolition, grinding and disposal sites handling asbestos containing material, establish and implement procedures to restrict public access.

**Air Monitoring** – Conduct air monitoring for the presence of asbestos fibers at enhanced construction and demolition debris landfills and LDEQ approved grinding facilities.

**Structures Demolished by the Disasters and Debris on the Ground:**

If a house or structure has been effectively demolished by the disaster, collection, treatment and disposal of the debris is not covered by LAC 33:III.5151.F. Additionally, this debris is not subject to the asbestos LESHAP, in accordance with EPA guidance.<sup>5</sup>P

**Structures That Remain Standing After the Disasters:**

1. Demolition or renovation of any facility, as defined in LAC 33:III.5151, is required to comply with LESHAP regulations.
2. Demolition/renovation conducted by homeowner or homeowner's contractor. Renovation or demolition by the individual homeowner of residential buildings with four or fewer dwelling units is not covered by the asbestos LESHAP<sup>6</sup>. Additionally, the resultant debris is not subject to the asbestos LESHAP.
3. Demolition of residential structures conducted as a result of a government order.

The EPA has indicated that multiple residential buildings of four units or less, being demolished as a result of the disaster in accordance with a government order, are considered an "installation" as defined in the asbestos LESHAP<sup>7, 8, 9</sup>P. Assuming the demolition of multiple residential buildings with four dwelling units or less by a single entity are covered by the asbestos LESHAP, the department will consider compliance with this guidance as compliance with the asbestos LESHAP. It will be the responsibility of the local government or its contractors to determine the boundaries of the installation site. EPA's guidance with respect to "site" states that the site should be a "relatively compact area", but "the local government should use common sense when applying this guide."<sup>10</sup> P EPA also states that "EPA believes that if a demolition project involves the demolition of several contiguous city blocks, the entire area could be considered a site."<sup>11</sup> P

<sup>5</sup> Letter dated November 9, 2005, EPA (Coleman) to US Army Corps of Engineers (Smithers), which states: "If a building or other structure was totally destroyed by a hurricane, then the National Emission Standard for Asbestos, 40 C.F.R. Part 61, Subpart M (Asbestos NESHAP) does not apply to any subsequent activities. For such destroyed structures, you may immediately begin removal and proper disposal of the resulting debris."

<sup>6</sup> NESHAP Clarification of Intent, Federal Register, July 28, 1995, Volume 60, Number 145, pages 38725-38726 which states: "EPA believes that individual small residential buildings that are demolished or renovated are not covered by the asbestos NESHAP. This is true whether the demolition or renovation is performed by agents of the owner of the property or whether the demolition or renovation is performed by agents of the municipality. EPA believes that the residential building exemption applies equally to an individual small residential building regardless of whether municipality is the "owner or operator" for the purposes of demolition or renovation."

<sup>7</sup> NESHAP Clarification of Intent, Federal Register, July 28, 1995, Volume 60, Number 145, pages 38725-38726 which states: "However, EPA believes that the residential building exemption does not apply where multiple (more than one) small residential buildings on the same site are demolished or renovated by the same owner or operator as part of the same project or where a single residential building is demolished or renovated as part of a larger project that includes demolition or renovation of non-residential buildings." The notice further states: "EPA does not believe the residential building exemption was designed to exempt larger demolitions or renovations on a particular site, even where smaller residential buildings are involved."

<sup>8</sup> EPA has also issued subsequent Applicability Determinations which support this position. See Determination Detail, Control #A960033, dated 11/01/1995 and Control #A970008, dated 09/04/1997.

<sup>9</sup> Letter dated November 9, 2005, EPA (Coleman) to US Army Corps of Engineers (Smithers), which states: "Please note that demolition and disposal of "partially-damaged" or "standing-but-unsafe-to enter" structures are subject to Asbestos NESHAP requirements."

<sup>10</sup> NESHAP Clarification of Intent, Federal Register, July 28, 1995, Volume 60, Number 145, pages 38725-38726.

<sup>11</sup> Ibid.

September 6, 2008

Notification of demolition and wetting requirements apply in all instances of demolition using the AAC-2 form. The AAC-2 form may be located on the LDEQ's Asbestos and Lead web page at [HTUhttp://www.deq.louisiana.gov/portal/Default.aspx?tabid=2251](http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2251)U<sup>TH</sup>.

**A. Facilities that are structurally unsound or uninhabitable**

It is the responsibility of local governments and their contractors to determine which houses should be demolished because they are unsound or otherwise uninhabitable, and to prepare a list of the houses to be demolished. These residences may be demolished in accordance with more streamlined demolition requirements provided by EPA.

Since no inspections are performed, the entire waste stream must be disposed of in a permitted Type I or II landfill or other LDEQ approved landfill that meets federal NESHAP disposal standards (such as an enhanced C & D landfill which are required to have additional controls to meet or exceed the federal standards under NESHAP (see 40 CFR § 61.154)).

**B. Structurally Sound Homes**

For the installations consisting of sound residential structures, the LESHAP/NESHAP requires a thorough inspection of such residential structures by an asbestos inspector accredited by the LDEQ. The "LDEQ Inspection Protocol for "thorough inspections," is considered compliant with LESHAP, and can be found at <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2251>.

**C. Thorough Asbestos Inspections**

Thorough asbestos inspections must be conducted by asbestos inspectors accredited by LDEQ. The LDEQ Inspection Protocol for "thorough inspections", which is considered compliant with LESHAP, must be followed when conducting a "thorough inspection" for the purposes of compliance with LESHAP.

**Disposal of Waste Streams Resulting From Inspections and Demolition Activities**



In order to address debris disposal needs as a result of recovery efforts after Hurricanes Katrina and Rita, LDEQ established criteria for Enhanced C& D Landfills. These enhanced landfills meet federal NESHAP disposal standards. Facilities meeting these requirements and approved by the LDEQ were utilized to effectively dispose of storm related debris. Should the nature or magnitude of the disaster warrant, LDEQ will reactivate the Enhanced C&D Landfill procedures to maximize debris disposal options.

September 6, 2008

- Debris from residences that are being treated as structurally unsound and in danger of imminent collapse must be disposed of in LDEQ permitted Type I or II landfills authorized to accept asbestos or other LDEQ approved landfills that meet federal NESHAP disposal standards (such as an enhanced C & D landfill).
- Non-regulated Category I and II ACM (Non-RACM) may be disposed of at designated areas within permitted Type III landfills that are LDEQ approved for Non-regulated Category I and II disposition.
- RACM that has been removed from residences for which a thorough inspection has been conducted must be disposed of in permitted Type I or II landfills authorized to accept asbestos.
- C&D debris waste may be disposed of at LDEQ approved construction and demolition debris waste sites.

#### **Handling of Debris and Waste Materials from Demolition Activity**

The following applies to demolition activities conducted on residential structures that are considered part of an installation:

1. For installations where residences are being thoroughly inspected prior to demolition and RACM is identified, or where residences are being treated as structurally unsound and in danger of imminent collapse, appropriate procedures for asbestos emission control provided by LAC 33:III.5151.F.3 shall be employed. The wet method (fogging/misting) should be used prior to demolition, during demolition and during loading of the material. Mist the houses, including asbestos-containing roofing shingles and siding, remove, segregate and transport in an appropriate manner to a permitted asbestos Type I or II landfill, enhanced C&D debris landfill or regular C&D debris landfill as appropriate. The removal and segregation of material suspected to contain asbestos, including asbestos containing roofing and siding, is recommended.
2. Each structure should be knocked down in a controlled manner to minimize excess breakage of asbestos containing material. Debris should be wetted during demolition, interim staging, and loading activities.
3. It may not be necessary that Category I asbestos containing material (vinyl tile, mastic, etc.) be removed and segregated from the construction and debris waste if it does not have a high probability of becoming friable. If this material does not become friable by the forces expected to act on the material in the course of demolition, it may be disposed at a designated area in an approved C&D disposal site. Regarding Category I asbestos containing material, follow the LDEQ Inspection Protocol for "thorough inspections."

September 6, 2008

4. Removal of RACM from Inside Sound Structures. For structurally sound structures, shut windows and doors. If they cannot be shut, install critical barriers (e.g. polyethylene sheeting). However, sufficient wetting is required to manage emissions during removal.
  - a. Negative air is not required;
  - b. The wet method must be employed to remove the regulated ACM;
  - c. Regulated ACM waste must be bagged and labeled;
  - d. Bulk material left behind must be visually inspected and cleaned appropriately;
  - e. No air monitoring clearance is necessary;
  - f. Walls, ceilings, floors, etc. must be encapsulated to ensure ACM fibers are not being released during demolition and loading;
  - g. Follow demolition procedures as noted in this plan, and use OSHA worker protection guidelines.

#### **Tires**

Because the occurrence of a disaster has the potential to generate a staggering number of waste tires removed from flooded or inoperable vehicles and may potentially cause an enormous drain on the Waste Tire Management Fund (WTMF), the decision on whether or not the tires will be eligible for payment through the WTMF will be made at the time of the issuance of an Emergency Declaration and Administrative Order by the Secretary of LDEQ. Regardless of payment or nonpayment from the fund, if tires cannot be resold or recycled through existing programs or processes, they will be managed as disaster-generated debris in accordance with LDEQ regulations or provisions of the Emergency Declaration and Administrative Order.

#### **Final Disposal Options**

This plan is designed to ensure that disaster-generated debris that requires disposal is managed and disposed in a manner that is protective of public health and the environment. Disaster-generated debris requiring disposal shall be managed and disposed at sites that have either been permitted or authorized by the LDEQ.

Uncontaminated disaster-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris may be disposed of in permitted Type II or Type III landfills. Uncontaminated wood debris generated from construction intended for final disposal must be segregated and reduced in volume and weight prior to transport to a landfill.

Disaster-generated debris contaminated with oil (i.e. crude oil, petroleum refined product) shall be disposed in a Type I Solid Waste Landfill, except that oil contaminated marsh grass may be approved for burning on a case by case basis. Disaster-generated debris that is visibly covered with oil is considered to be oil contaminated debris.

The burning of disaster-generated debris contaminated with or containing hazardous waste is prohibited.

Creosote treated telephone poles, railroad crossties or treated wood chips must be disposed in a Type I Solid Waste Facility.

September 6, 2008

Construction and demolition debris that is mixed with other disaster-generated debris need not be segregated from other solid waste prior to disposal in a permitted solid waste landfill. Non-recyclables and residuals generated from segregation of disaster-generated debris shall also be disposed of in a Type II or III landfill.

Putrescible waste (e.g. rotting food that has been removed unsalvageable refrigerators and freezers) shall be disposed of in a Type II landfill.

The disposal of excessive accumulations of small animal carcasses shall be in accordance with the Louisiana Department of Health and Hospitals sanitary code. The disposal of large animal carcasses (e.g. horses, cows) shall be in accordance with the instructions from the Louisiana Department of Agriculture.

Hazardous waste generated as a result of the disaster event must be separated from other disaster-generated waste and disposed of at a permitted commercial hazardous waste disposal facility. Recyclables and hazardous waste must be segregated for beneficial environmental use prior to transport to a landfill. While household wastes are classified as solid wastes that are not hazardous wastes, it is imperative that the household waste collected during this event be managed not only in an environmentally sound manner but also in accordance with the appropriate LDEQ rules and regulations governing the storage and processing of this type of waste.

#### **Formosan Termite Control**

Landfills are an ideal environment for these subterranean termites, especially in humid Louisiana. For this reason, restrictions are in place from the Louisiana Department of Agriculture and Forestry designating where in Louisiana potential Formosan termite contaminated debris might be disposed. Landfill operators, contractors and waste generators should consult with the Department of Agriculture and Forestry regarding proper disposal of Formosan termite debris. Contact Mr. Bobby Simoneaux at (225) 925-3763 or [HTU@bobby\\_s@lafd.state.la.us](mailto:HTU@bobby_s@lafd.state.la.us)

September 6, 2008

## **APPENDIX E**

### **LDEQ Inspection Protocol to comply with the term “thorough inspection”**

An LDEQ accredited asbestos inspector performs an inspection whereby all suspect Asbestos Containing Material (ACM) is sampled and samples are analyzed by an LDEQ accredited laboratory, utilizing Polarized Light Microscopy (PLM). This includes but is not limited to:

1. Friable material such as walls, ceilings, insulating materials, floor coverings, fire proofing, window caulking, etc;
2. Category I nonfriable ACM that has become friable;
3. Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, in accordance with 40 CFR Subpart M-National Emission Standard for Asbestos, 61.141. Definitions; and
4. Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Category II material such as cement asbestos containing roofing shingles and siding are to be assumed ACM.

The number of samples taken shall be in accordance with the Asbestos Hazard Emergency Response Act (AHERA). Where feasible, AHERA should be employed with the exception of a partial inspection.

An inspector may make a determination that Category I material such as resilient floor covering, caulking, etc. is in good condition by administering hand pressure. If the material is not friable and in good condition, it is not necessary to sample the material because it is Category 1 in good condition that does not have a high probability of becoming regulated ACM, and is therefore considered to be non regulated.

### **Partial Inspection**

Where a “thorough inspection” can be conducted on the majority of the structure, including sampling of suspect ACM if any is present, that procedure will be completed to the extent possible. If suspect RACM is present and verified by sampling to be RACM, the structure will be demolished and disposed as RACM. In the case where the partial inspection reveals either no suspect RACM or sampling demonstrates that no RACM is present, that part of the structure will be demolished as C&D debris.

September 6, 2008

After the unstable/inaccessible portions of the structure are made safe and accessible, the accredited asbestos inspector will verify that the materials in that part of the structure are homogeneous with the materials that were inspected during the partial inspection. If determined to be homogeneous and no other RACM is identified, the remainder of the structure will be determined to be C&D debris. However, if the inspector determines that the materials in the unstable/inaccessible portion of the structure are not homogeneous or that RACM is present, the unstable/inaccessible portion of the structure will be demolished and disposed as RACM.

September 6, 2008

## **APPENDIX F**

### **PLAN FOR EVALUATING UNDERGROUND STORAGE TANK SITES IMPACTED BY HURRICANE GUSTAV**

#### **PROBLEM DEFINITION**

On September 1, 2008, Hurricane Gustav struck Louisiana causing widespread damage. The specific effects of the Hurricane were unforeseen and uncontrollable; and emergency conditions (threats to human health and the environment) persist. Underground Storage Tank (UST) sites have been impacted by flood waters which will require actions be taken to place these sites back into operation. Steps necessary to place the site into operation are being outlined to ensure that new releases do not occur and if releases are identified in this process that they are properly addressed. The focus of this effort will be to place these sites into operation while ensuring protection of human health and the environment.

#### **BACKGROUND**

Flooding and damage related to the Hurricane has raised many issues regarding Underground Storage Tank site status. Damage to UST systems as well as remediation systems is expected. The impact of this damage must be evaluated to determine what steps are necessary to place these sites back into service.

Damage that occurs to UST systems generally results from: the buoying up of tanks which are partially full or empty, water entering the tanks and displacing product, failure of underground piping as a result of stresses induced by groundwater pressures or debris, and damage to electrical systems from extended contact with water. Additionally, another route of infiltration exists if the level of floodwaters exceeds the top of the vent lines. Regulated UST's which are weighted down with fuel or anchored by other means (deadmen or attached to an underlying pad) and have properly installed and tightened filler caps and vapor recovery port caps should sustain little impact, even after being submerged for days.

Tanks in which fill caps are not tightened will fill with water and then spill product, some of which may percolate into shallow soil. Empty or near-empty tanks will float up, destroying overlying concrete/asphalt and distribution lines, also spilling product. In these situations, it is expected that the entire UST system would require replacement. Presently, the extent and magnitude of damage to UST systems themselves and to the shallow subsurface environment as a result of the Hurricane is unknown. At this time the primary objective is to put these systems back into proper service to meet the fuel

September 6, 2008

supply need of initial and subsequent response efforts. Later, as time and resources permit, assessment and remediation of any environmental impacts will take place.

### **UNDERGROUND STORAGE TANK EVALUATION**

Underground Storage Tank sites flooded by the Hurricane must be evaluated to determine response actions necessary to place these UST facilities back into service and protect human health and the environment. New product should not be placed in the tanks if there are indications that the integrity of the tank has been comprised when performing the activities outlined below.

#### **General Information:**

UST Owners/Operators will be responsible for evaluating underground storage tank systems to determine if they are suitable for receiving product. Flooded systems that are **determined to be suitable for receiving product** may be put back into service and should have an integrity test performed as soon as contractors and services become available to perform the testing and no later than six (6) months after product was first placed into the tank after flooding. If the tank inspection outlined below (or subsequent monitoring of the tank), indicates that the system has been comprised; **the system should be taken out of service** and repaired or replaced as necessary and an integrity test performed prior to again putting the system into operation.

The Department has established contact telephone numbers to be used by contractors and citizens for reporting exigent conditions and for questions concerning problems with UST systems. These numbers are (225) 219-3236 and (337) 849-7160. (Department's 3<sup>rd</sup> floor receptionist). These procedures for contractors are being provided to tank owners, tank removal and installation contractors, response action contractors and trade groups that represent the industry such as Louisiana Oil Marketers Association and Louisiana Mid-Continent Oil and Gas Association. This information will also be posted on the Department's Web Site.

#### **General Evaluation Protocol for Contractors:**

No equipment should be turned on prior to examination. Check all electrical panels and make sure they are clean and dry. All equipment related to electric power service should be inspected and any necessary repairs should be made prior to power restoration. This includes all fueling systems, leak-detection devices and corrosion prevention (impressed current) equipment. The electrical system should be checked for continuity and shorts (pumps, turbines, dispensers, ATG consoles, emergency shutoff, panel box, etc.)

September 6, 2008

Specifically, all electrical junction boxes and dispenser heads should be opened, inspected and dried if necessary. Conduits should be inspected for the presence of water, insulation damage, shorts or opens. Conduits exhibiting water should be dried or vacuumed as appropriate and all defective wiring should be replaced. To apply electrical power to a UST system before conducting basic examination could be extremely dangerous.

Submerged pumps and dispensers should not be operated if there is the possibility of water entering into the system as pumping water may damage hydraulic components.

Technical Protocol for Contractors:

These protocols should be followed to place tanks back into service:

1. Stick tanks using water finding paste or read automatic tank gauge system, if operable, to determine whether water has entered the UST.
2. Flooded or water impacted tanks and all lines may need to be drained of water and dirt/mud or perhaps pumped dry and cleaned as conditions warrant. Liquids removed must be properly handled and disposed.
3. Interstitial spaces of tanks and lines of double walled systems, if flood-impacted, will need to be drained and flushed where possible. Blockage of interstitial spaces will render leak detection useless. Depending on the level of residual contamination at the facility, certain leak detection methods may no longer be viable. Tanks with brine or vacuum interstitial sensors may be returned to service if brine or vacuum levels are normal. Be prepared to update damaged leak detection equipment after emergency conditions are abated.
4. All facility sumps, pans, and spill buckets need to be pumped dry and cleaned. Replace sump lid gaskets if applicable. If sump lids are missing, replace with new water tight lids. Replace sumps and spill buckets that fail to prevent water intrusion after initial cleaning and drying.
5. Check tank bottoms for water and debris. Remove and dispose as appropriate (see item #2 above).
6. Check deflection of fiberglass tanks. If deflection is greater than manufacturer's specification (general guideline is 2%) call the manufacturer for instruction.
7. If tanks shifted and problems are found, **repair or replace them** according to manufacturer's instructions and appropriate industry standards and

September 6, 2008

regulations. Obviously, these **systems should be shut down and not receive fuel** until they are deemed safe for reuse (tightness tested).

8. Check vents for movement, cracking, blockage and proper operation.
9. Check dispenser filters and submersible check-valve screens for plugging with dirt or mud.
10. Flush dispensers and UST system if necessary. Collect fluids for proper disposal.
11. Check critical safety devices (e.g., emergency power off controls, line leak detectors, air compressor pressure limiters, shear valves, stop switches, isolation relays on dispensers, etc.). Shear valves may be salvaged if they can be cleaned and lubricated with corrosion preventative. Some will still have to be replaced.
12. Sump sensors may need to be replaced after emergency conditions cease.
13. In-tank pumps, Automatic Tank Gauge (ATG) probes, overfill devices, automatic line leak detectors, fill and vapor dust caps, etc. should be assessed. Assess their condition after cleaning and replace as necessary.
14. ATG consoles and any associated electronics that are not submerged, should have a programming and operability check performed by a certified technician after emergency conditions cease.
15. After emergency conditions are abated, submerged Corrosion Protection (CP) rectifiers and associated aboveground equipment protecting tanks and/or lines may have to be replaced. If not submersed have a National Association of Corrosion Engineers (NACE) certified professional perform an operability check of the equipment. Inspect CP lines in saw cuts for damage and replace as necessary. If CP systems are out of service for an extended period of time perform integrity assessment of affected component before placing CP system back into service. A NACE certified professional will be helpful assessing the CP system.
16. Check accessible fittings, valves and miscellaneous piping for damage and corrosion. Clean and replace as necessary.

September 6, 2008

17. Document all inspection, assessment and repair activities at each UST system site. Provide this information to the Department in stand-alone report format within ninety (90) days of initiation of operations of that UST facility.
18. Submerged dispensers will have to be replaced or repaired as necessary. This includes the hanging hardware. Any suction system dispensers will probably have flood impacted motors and pumps and may need complete replacement.

General Protocol Upon Resumption of Service:

Depending on the level of residual contamination at the facility, certain leak detection methods may no longer be viable. Daily inventory control (with strict record keeping) may be the short-term leak detection method by necessity. Daily checks for water with water-finding paste should be done for several days until it has been determined that the system is tight. If these daily water checks indicate excessive water or the daily inventory control shows loss of product, **the tanks should be emptied of product and use of the tanks should cease**. Notification of these conditions should be made to the Department's UST hotline ((225) 219-3406) as soon as practical.

Post Start-Up Protocol for Contractors:

This protocol should be followed once flood-impacted tanks have been placed back into service and emergency response and restoration have been completed or as otherwise directed by the Department:

Precision tightness test tanks, lines and interstitial spaces (after emergency conditions abate). Assess interstitial spaces for blockages, especially if used for leak detection. Decisions regarding replacement of tanks and lines should be made based on outcome of these tests. Department field staff should be consulted on these decisions whenever possible. Cathodic protection systems should be checked to make sure they are connected and operational.

These actions are being delayed in an effort to expedite fuel delivery capabilities and due to unavailability of sufficient contractors to perform the otherwise required work in a timely manner. All leak detection equipment must be put back into operation as soon as practically possible or as directed by the Department after the emergency has abated.

Other General Provisions for Owner/Operators and Contractors:

September 6, 2008

At flood-impacted sites, facilities will be allowed to salvage useable fuel in USTs by checking fuel for water and allow salvage of useable fuel. If flood water covered vent lines, displacement of fuel would have occurred and large volumes of water may exist in the affected USTs and require proper storage/disposal. This water should not be discharged to areas such as streets, storm drains, sumps and ditches that are not permitted to receive these liquids.

Requirements for remediation of contaminated groundwater via approved corrective action plans in place prior to the Hurricane are suspended at UST sites in the parishes of the emergency areas unless otherwise directed by the Department. However, the Department may require systems remediating free phased product to continue pumping operations.

Sites which have not experienced impacts from the Hurricane shall continue with routine remedial efforts and reporting (Unless RAC/consulting firm handling the remediation has been affected and displaced by the storm).

All facilities in which remedial efforts are temporarily suspended or delayed must provide notice to the Department by calling (225) 219-3236 and provide written documentation as directed.

#### **EVALUATION SCHEDULE**

The evaluation of UST status should be initiated as soon as conditions allow flood area re-entry. Further testing will be performed once emergency conditions and major restoration efforts are complete and when sufficient contractors are available to perform the work. This further testing should be performed no later than six (6) months after product was first placed into the tank after flooding.

September 6, 2008

## **APPENDIX G**

### **GUIDANCE FOR SPECIAL WASTE HANDLING, REUSE AND RECYCLING**

The following information is intended to assist operators of solid waste facilities, recycling centers, scrap metal dealer, local governments, and contractors in handling debris from the Emergency Areas. The Debris Management Plan (Appendix D) should be consulted for greater detail.

#### **1. Intent**

Every effort should be made to minimize debris disposed in landfills. Diversion, composting and recycling debris are priorities. Debris handlers should make every effort to properly handle and recover debris materials that have reuse value, are recyclable or the release of which into the environment would be detrimental or is prohibited, e.g. used motor oil.

#### **2. Scope**

Sources of debris requiring special handling include: households, businesses, schools, public buildings, automobiles and boats.

#### **3. Types of materials by source**

The types of debris to which this guidance is directed and the sources from which the subject debris emanates are as follows:

- a. From automobiles: gasoline and diesel fuel, refrigerants, lubricating oils, mercury ABS switches, mercury convenience switches, lead acid batteries, brake and transmission fluid, antifreeze and tires. Propane tanks and large appliances in recreational vehicles should be removed.
- b. From boats: gasoline and diesel fuel, refrigerants, lubricating oils, mercury bilge switches, propane tanks, large appliances, lead acid batteries, transmission fluid and electronics, such as, radar sets, radios, GPS units, and depth finders.
- c. From households and businesses: paints and varnishes, solvents, acids, pesticides, cleaning fluids, pool chemicals, used motor oil, propane tanks, mercury thermostats, liquid mercury, mercury-containing devices, and refrigerants. Large appliances also known as "white goods" may not be landfilled. Refrigerants must be removed. Food should not be left in appliances. Every reasonable effort should be made to recover large electronic devices, such as, television sets, computers and computer monitors.
- d. From schools and public buildings: paints and varnishes, solvents, acids, pesticides, cleaning fluids, pool chemicals, used motor oil, propane tanks,

September 6, 2008

mercury thermostats, liquid mercury, mercury-containing devices, and refrigerants. Large appliances also known as “white goods” may not be landfilled. Refrigerants must be removed. Food should not be left in appliances. Every reasonable effort should be made to recover large electronic devices, such as, television sets, computers and computer monitors. Special attention should be given to school chemistry laboratories.

**3. Monitoring**

Demolition teams, debris collectors, local governments and landfill operators should be vigilant for proper handling the above listed items.

**4. Recordkeeping**

Processors should keep a record of the amount of materials recovered and transported for recycling. Some products already require recordkeeping, e.g. used oil, and duplicate recordkeeping is not required.

September 6, 2008

## APPENDIX H

### **PUBLIC NOTICE AND PUBLIC PARTICIPATION PROCEDURES REGARDING PROPOSED PERMIT ACTIONS IN HURRICANE IMPACTED AREAS**

The dislocation of residents and the damage to infrastructure in the Emergency Areas has affected the ability of the Department of Environmental Quality to solicit and receive comments on proposed permit actions. The following procedures are intended to address these issues in a manner that offers the opportunity for meaningful public participation and that meets the requirements and intent of the state and federal permitting statutes and regulations.

Public notice and comment procedures will vary according to the categorization of the parish in which the facility at issue is located. The Department will categorize parishes after evaluating all relevant factors, including but not limited to:

1. newspaper circulation rates (both paid subscriptions and free distribution), comparing pre-hurricane with current rates;
2. basic services - power, potable water, and sewage treatment;
3. local government approval for residents to return for long-term habitation;
4. number of schools that are open;
5. availability of locations to serve as document repositories and in which to conduct public hearings should they be requested;
6. condition of roads.

**Category 1 parishes** are those with newspaper circulation rates of at least 90% pre-hurricane levels. Basic services are restored to at least 90% pre-hurricane levels. The parish is open for long-term habitation and public schools have resumed operation.

In Category 1 parishes, the Department will continue to implement the public notice procedures in place before the Hurricane. This includes publication in the required newspapers, sending notice to individuals on the Department's permits mailing list, placing notice on the Department's web page, and sending electronic notice to individuals who have registered with the Department to receive notices in this manner. The DEQ Public Participation Group (PPG) will use its knowledge of newspaper distribution rates and patterns to determine if the notice should be placed in more than one local newspaper. Some permit procedures require notice to also be placed in the official state journal, *The Advocate*.

**Category 2 parishes** are those with newspaper circulation rates of at least 50% pre-hurricane levels, and basic services restored to at least 50% of the parish. The parish is open for long-term habitation and public schools have resumed operation.

September 6, 2008

In Category 2 parishes, the Department will follow the same procedures provided herein for Category 1, with the addition of the following: Notices will be placed in *The Advocate* to identify the permits placed on public notice for the previous week, sorted by parish. These notices will clearly identify the electronic web link to view the public notices and will give the phone number to call to request additional information or to find out where documents may be reviewed locally.

**Category 3 parishes** are the most severely affected parishes. Any parish not meeting all of the criteria for Category 2 are considered Category 3.

In Category 3 parishes, the Department will follow the same procedures provided herein for Category 2, with the addition of the following:

1. Comment periods will be extended a total of fifteen (15) extra days.
2. Notices will be published twice in the selected newspaper(s).
3. An additional newspaper will be selected in which to publish the notices. This will be the newspaper with the largest circulation in a parish that physically adjoins the parish in which the facility is located.
4. If not already required to do so, the Department will publish notices in *The Advocate*, the official state journal.

When arranging public hearings to solicit comments regarding permitting activities, the Department will work with stakeholders to find suitable hearing site locations.